ARCHITECTURE & DESIGN

PROJECTS PRODUCTS PEOPLE / APR-JUN 2025 / THE COMMERCIAL ISSUE

FLOORS & FLOORING

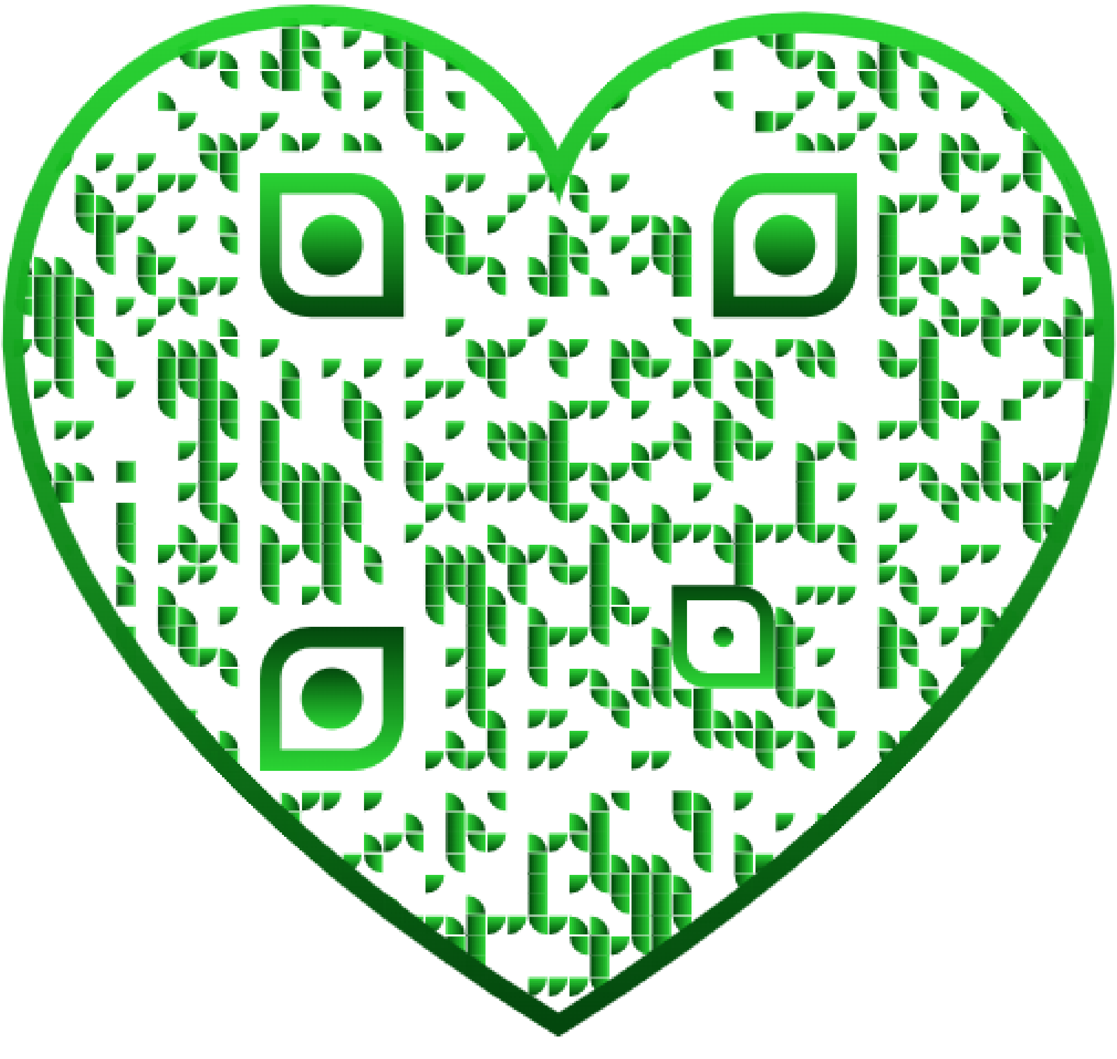
WINDOWS + CEILINGS

WATERPROOFING

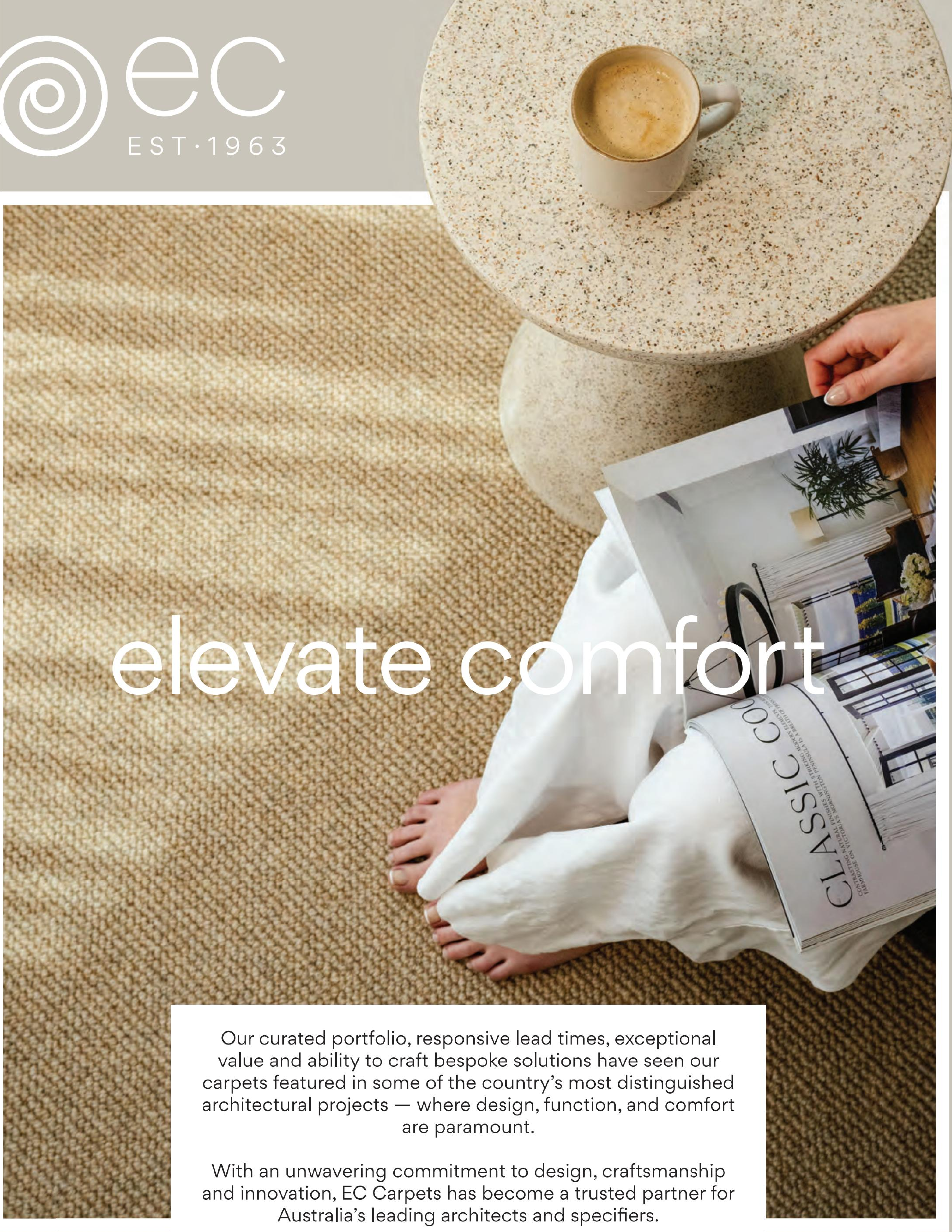
A LOOK AT THE NEW SYDNEY FISH MARKET

THE BRUTALIST FILM REVIEW

PRINT POST APPROVED 100028280



ec
EST·1963



Our curated portfolio, responsive lead times, exceptional value and ability to craft bespoke solutions have seen our carpets featured in some of the country's most distinguished architectural projects — where design, function, and comfort are paramount.

With an unwavering commitment to design, craftsmanship and innovation, EC Carpets has become a trusted partner for Australia's leading architects and specifiers.

www.eccarpets.com.au | projects@eccarpets.com.au

Editor's Letter

BRANKO MILETIC

In the realms of architecture and design, few sectors reflect the pulse of societal evolution as vividly as commercial spaces. They are, in essence, the places where we gather—formally and informally, by design or by chance. From coworking hubs and hotel lobbies to restaurants, shops and showrooms, commercial architecture is a barometer for how we live, work, transact and connect.

It also measures how well (or not) our economy is doing, a paradigm that more and more determines much of our lives.

So, this issue of *Architecture & Design* is dedicated to the theme of commercial design—not just as a typology, but as a cultural force. At a time when retail must compete with the seamlessness of online shopping, when office buildings must prove their worth post-pandemic, and when the hospitality sector must respond to increasingly discerning guests, commercial spaces are undergoing a quiet revolution. Functionality is a given; experience is everything.

We look at projects that champion more than sleek finishes. They embed purpose into planning, emotion into aesthetics, and sustainability into structure. We showcase designers who are redefining the meaning of 'user-centric'—not only accommodating the people who walk through the doors, but those who build, clean, and operate them too. And we ask: What does commercial success look like when judged not only by profit, but by wellbeing, accessibility, and social value?

Throughout the pages of this issue, you'll encounter spaces that are theatrical and restrained, democratic and luxurious, futuristic, and grounded. It's a reminder that commercial architecture doesn't have to be generic or transactional. It can—and should—aspire to something greater: to be generous, to be adaptable, and to foster community, even in the most unlikely of contexts.

With features that span the measure of usable space, the commercial design theme looks at areas such as floors & flooring with a particular focus on safety, productivity, sustainability, and aesthetics; we examine the applications and veracity of waterproofing solutions & applications in commercial building; we look at how specifying the correct window & glazing systems is essential to the energy efficiency and comfort of all commercial buildings and we literally reach for the ceiling in commercial settings in order to show how it has become a vital design element that contributes to both the aesthetics and functionality of a commercial space.

Along with those features, we have a host of projects, designs, comments, and a range of opinions that will allow you look at commercial design in a completely different way.

In other words, we hope this issue inspires you to look well beyond the surface, or dare I say, the facade—and to consider how design can elevate not just environments, but also the everyday experiences within them.

PHOTOGRAPHY: New Sydney Fish Market, designed by 3XN in association with BVN.

ON THE COVER Situated on the iconic Sydney Harbour, the renewal of the Sydney Fish Market is more than a redevelopment – it's a reimagining of public space, heritage, and urban connectivity.
One of the standout design features in the new market is that of the roof, which packs a huge amount of complex considerations into its elegant, sweeping form.

Contents

PEOPLE

APPOINTMENTS 6
ALEX SYMES INTERVIEW 8
FILM REVIEW: THE BRUTALIST 10
A CLASH OF CIVILISATIONS 14

PROJECTS

FRED ARCHITECTURE 18
400 GEORGE 22
VICTORIA PLACE 28
ACE HOTEL 34
URBAN CATALYST 38

PRACTICAL

MAKING A SPLASH 46
CEILING SOLUTIONS 54
WINDOWS AND FRAMING 67
HOW TO SELECT COMMERCIAL CARPETING 76

PODCAST CORNER 88

SHOWCASE 93

FOLLOW US

Facebook @archanddesign
LinkedIn architecture&designaustralia
Instagram @architectureanddesignaustralia
Podcast Talking Architecture & Design

EDITOR
Branko Miletic
branko.miletic@architectureanddesign.com.au

DIGITAL EDITOR
Clémence Carayol
clemence.carayol@architectureanddesign.com.au

CONTRIBUTORS
Matt McDonald
Stephanie Stefanovic
Hamish McDonald

DESIGNER
Ekaterina Podloujnaya

ADVERTISING SALES MANAGER
Adrian Wilson
Phone: 02 9368 0150
adrian.wilson@architectureanddesign.com.au

GROUP OPERATIONS MANAGER
Sheree Bryant
sheree.bryant@architectureanddesign.com.au

MARKETING MANAGER
Cherie Nelson
cherie.nelson@architectureanddesign.com.au

SENIOR CAMPAIGN MANAGER
Kim Ruth
production@architectureanddesign.com.au

CAMPAIGN MANAGER
Lea Ittermann

CAMPAIGN EXECUTIVE
Grace Yang

ARCHITECTURE & DESIGN

ARCHITECTURE & DESIGN

Phone: 02 9368 0150
Email: info@architectureanddesign.com.au

SUBSCRIPTION ENQUIRIES
Call Customer Service: 02 9368 0150
ISSN 1039-9704
ARCHITECTUREANDDESIGN.COM.AU

© Copyright Architecture & Design. All rights reserved. No part of the publication can be reproduced or copied in any form or by any means without the written permission of the publisher. Utmost care is taken to ensure the accuracy of the editorial matter. Product specifications and claims are those of the manufacturers.

TALKING ARCHITECTURE & DESIGN
Sustainability Awards
Sustainability Summit
THE ARCHITECT AND SPECIFIER BULLETIN
CPD LIVE

Opinions and viewpoints expressed by interviewees, writers and columnists in Architecture & Design do not necessarily represent those of the editor, staff or publisher of the magazine.

Contributors

BRANKO MILETIC

Working as a journalist for the past 23 years, editor of *Architecture & Design* Branko Miletic has been privileged to write on many subjects and industries such as Government, Manufacturing, Small Business, IT, Consumer Electronics, Lifestyle, Mining, Hospitality, Packaging, Sport and Food.

Originally a research and development chemist in the mining industry, he has also written general op-ed and feature pieces for a range of mainstream publications here in Australia and around the world.

CLÉMENCE CARAYOL

Clémence Carayol is the Digital Editor at *Architecture & Design*, managing the publication's online presence and social media platforms. Originally from France, she relocated from Paris to Melbourne in early 2021.She has written for major outlets like *Le Monde* and *Courrier International*, and Canada's *Urbania*, covering topics from culture to environmental issues. In Australia, she has held numerous editorial roles, such at *Australian Design Review* and *inside*. Her work has also appeared in *Harper's Bazaar*.

MATTHEW MCDONALD

Matt McDonald has more than 20 years' experience as a journalist, editor, and copywriter, focussing on the architectural sector, the food, manufacturing and materials handling industries.

He sees his role as informing architects, designers and other industry professionals about the latest issues, product trends and breakthroughs, while also, meeting and learning from some of the industry's leading innovators.

STEPHANIE STEFANOVIC

With a Bachelor of Arts majoring in Environmental Management and a Graduate Diploma in Economics, former *Architecture & Design* Deputy Editor, Stephanie Stefanovic is a content manager and business journalist with a background spanning technology, environmental planning and publishing. She has a strong interest in infrastructure projects, environmentally conscious architecture and innovations in sustainable technology.

HAMISH MCDONALD

Hamish McDonald has been a foreign correspondent in Indonesia, Japan, Hong Kong, India and China and travelled widely around the Pacific. During his time in Beijing ahead of the 2008 Olympics, he saw the splurge on new buildings and stadiums that drew in many of the world's famous architects. Since his settlement back in Australia he's pursued this interest with interviews of leading figure in the built environment for *Architecture & Design*.

AWS
ARCHITECTURAL WINDOW SYSTEMS

Architect: AD Architecture
Photographer: Matthew Seebeck
Fabricator: PAG

VANTAGE® WINDOWS & DOORS

ELEVATE
ALUMINIUM SYSTEMS

Contemporary Architectural Windows & Doors

- Custom solutions for your unique project
- Big bold panels and wide spans
- Fully tested systems
- Australian designed, tested & manufactured

For more information:
specifyaws.com.au

Appointments

ABOVE HY William Chan / Supplied.

HY WILLIAM CHAN NAMED OBEL AWARD TEACHING FELLOW

Sydney architect and emeritus councillor HY William Chan has been named a recipient of the prestigious OBEL Award Teaching Fellowship, a globally renowned architecture honour.

Recognising leading practitioners shaping the future of the built environment, the Fellowship will see Chan join the School of Architecture at the University of Technology Sydney (UTS) in 2025 to advance education in sustainable city-making.

Representing a new generation of urban leaders, Chan is recognised for his expertise in integrating design excellence, policymaking, and climate resilience.

As the youngest-ever councillor in the 180-year history of the Sydney Lord Mayoral government, his leadership embodies an interdisciplinary, community-driven approach to addressing the challenges of urbanisation.

ENGINEER NICOLE WATERMAN WINS EXECUTIVE WOMEN'S LEADERSHIP SCHOLARSHIP

The National Association of Women in Construction NSW (NAWIC NSW) has awarded a prestigious government sponsored $30,000 scholarship for women in property and construction to Engineer Nicole Waterman, Project Leader at Laing O'Rourke.

The scholarship was created to recognise women who have made a significant impact on the construction industry and demonstrate potential as future leaders.

It provides funding for executive level further education to equip senior women in the construction sector with the leadership skills to drive industry change.

As a talented engineer who has led teams of up to 250 people, Ms Waterman has contributed to the delivery of multi-billion-dollar infrastructure projects and championed women in the industry through mentoring and advocacy.

Waterman is currently leading the TAP3 Footbridge Project at St Marys NSW, was Delivery Partner Lead on the $2 billion Western Tunnelling Package and played a key role in the Central Station upgrade for Sydney Metro.

ABOVE Nicole Waterman / Supplied.

ABOVE Bianca Dignan and Ben Nicholas / Supplied.

CARR ANNOUNCES LEADERSHIP APPOINTMENTS

Joining Carr in 2021 as a Senior Interior Designer before her elevation to Associate, Bianca Dignan brings a wealth of local and interstate expertise across a body of work spanning residential, hospitality and commercial projects.

Continuously delving into the user behaviour of various residential typologies, Dignan appreciates the commercial acumen of the residential market.

A driving force behind Carr's growing presence in Queensland, she leads a series of interior projects in the region that interrogate and respond to the uniqueness of each location to create an elevated outcome.

With a background in architecture and interior design, Nicholas possesses nearly two decades of practice experience across both disciplines.

His approach is strongly shaped by this unified thinking, which allows him to provide a balanced and distinctive lens to each project. A registered architect, Ben is well-versed in crafting the architecture and interior design of high-end residential, multi-residential and hospitality spaces.

The move expands Carr's senior leadership team and reflects the studio's overall development of leaders and marks a strong step in Carr's sixth decade.

ABOVE Ben Ryan and Sophie Kondrat / Supplied.

ENVIROTECTURE EXPANDS TEAM WITH NEW APPOINTMENTS IN SUSTAINABLE DESIGN

Sustainable design consultancy Envirotecture has bolstered its expertise with the addition of two new specialists, Sophie Kondrat and Ben Ryan, who join the firm's Sydney and Ballarat teams, respectively.

With an Advanced Diploma in Building Design and an impressive background spanning Building Information Modelling (BIM) management, visualisation, and wayfinding, Ben Ryan brings a wealth of technical knowledge and practical experience to his new role at Envirotecture's Ballarat office.

Ryan's expertise includes developing documentation, managing digital modelling, and designing wayfinding systems—all crucial elements in shaping the functionality of built environments. He is known for his methodical approach, focusing on clear communication, streamlined processes, and the thoughtful use of natural materials.

Having joined the company at the end of last year, he is now contributing to projects across Victoria and the wider Australian market, where his expertise in sustainable design is expected to make a tangible impact.

In Sydney, Interior Designer Sophie Kondrat is the latest recruit to Envirotecture's growing team, bringing with her an extensive background in sustainable furnishings and interior design.

Kondrat's appointment follows a competitive selection process, during which Envirotecture's directors noted a surge of interest in environmentally responsible design. She was ultimately chosen for her alignment with the company's sustainability ethos, as well as her demonstrated ability to create interiors that are both aesthetically refined and environmentally responsible.

ABOVE Gary Henighen / Supplied.

WAM ALSO WELCOMES NEW PRINCIPAL

Warren and Mahoney (WAM) has also announced the appointment of Gary Henighen as Principal within its Sydney studio.

Henighen joins WAM from Architectus, where he was Principal. This strategic appointment bolsters the Australian leadership team and further enhances the firm's ability to serve clients with world-class design outcomes.

With over 20 years' experience in both Australia and the UK, Gary brings a wealth of experience in delivering landmark residential, mixed-use developments, transit-oriented precincts, towers, and urban renewal projects.

His impressive track record includes overseeing the design and delivery of award-winning projects such as the iconic 80-storey mixed-use tower on George Street, Sydney, the large-scale urban renewal project at Waterloo Estate South, and DUO Central Park.

CAMERON LEGGATT APPOINTED CHAIR OF RESIDENTIAL DEVELOPMENT COUNCIL

Cameron Leggatt, CEO of Frasers Property Australia, has been appointed Chair of the Residential Development Council (RDC), the Property Council of Australia's primary forum to represent Australia's residential development sector.

Leggatt succeeds Mirvac's CEO, Development - Residential, Commercial and Mixed-Use Stuart Penklis who remains on the RDC Board. He will serve as the RDC's Chair for the next two years and sit on the Property Council's National Board.

ABOVE Cameron Leggatt / Supplied.

BRENTON BEGGS JOINS ARCHITECTUS TO LEAD LANDSCAPE ARCHITECTURE IN VICTORIA

Architectus is strengthening its commitment to landscape architecture with the appointment of Brenton Beggs as the new Landscape Lead in Victoria.

Bringing a wealth of experience across urban design, strategic master planning, and public realm transformations, Beggs is set to drive innovation and collaboration within the firm's growing landscape team.

ABOVE Brenton Beggs / Supplied.

Award-winning architect Alex Symes mission to advance sustainable architecture

INTERVIEW BRANKO MILETIC

Alex Symes learned that the best way to get environmental changes done was by understanding the economics, considering the needs of the client, and showing them there's a good return on investment long-term in design.

ABOVE Coconut Crab, Barton Taylor Photography.

ABOVE Alexander Symes.

Sydney-based Architect Alexander Symes credits his award-winning designs to a "process' that focuses on quantifiable environmental outcomes while ensuring they're done in a really design-considered way.

Symes, who has almost two decades of professional experience, says the awards his practice, ASA, won in 2024 are "an outcome of the process of showing why we're reducing the embodied energy, how we're reducing the operational energy, and why these particular projects are unique in terms of stewardship or models of using resources more efficiently".

ASA's two award-winning projects of 2024, Coconut Crab (Commercia - Small) and Fun Haus (Single Dwelling - Alteration/Addition) – both built according to Passive House principles – are outstanding examples of the practice's belief that architecture must lead the way in changing how resources are utilised to contribute to a sustainable future.

Coconut Crab in Sydney's Inner West, for instance, is a little pottery studio that ASA designed for Araceli Adams, a potter who wanted to create a space in the garden of her family home for her to work in as well as host workshops where she could tell stories about underwater biodiversity, educating guests about marine life and conservation, and becoming better stewards.. The giant coconut crab on the facade of the studio was specifically chosen to highlight the impact of climate change on the species' natural habitat.

"So it's about having those stories and connecting people to this amazing world that we live in and taking them out of their everyday life, or how we might actually change our behaviours to have a better impact and be better global citizens. So that project's really special to me," says Symes.

Fun Haus is a really unique project, explains Symes, because it's about "putting a multi-family house on a really small inner city block". Situated on a 117-square-metre site in Darlington, Sydney, the project features a three-bedroom terrace at the front, a shared work-from-home office at the back, and a studio on the top, housing a total of six people on the compact site. "So that concept of how do you get people living on 19 square metres – if you apply that philosophy over our urban environment, we can get much better urban environments in terms of goods and service provisions and cafes, and people having walking oriented communities," he observes.

"I think it looks really lovely as well and reuses the old house that was originally there in really creative ways," he adds.

SUSTAINABLE DESIGN IN AUSTRALIA

"Holistically, we all know we're being too slow and not going fast enough," Symes says. "Like our houses are too big, our emissions per capita are too high, and in terms of what really needs to happen, it needs to be regulation oriented."

To stop the impact of global temperature on biodiversity and people's livelihoods, he suggests that architects should design for much higher temperatures and extreme weather events. "That's the skillset now that we can give our clients so that the impacts of climate change are mitigated as much as possible."

TRENDS IN ARCHITECTURAL DESIGN

"I don't like to do trends; it's more ethos or philosophy based and following a strict process," says Symes.

In terms of emerging practices, one of the materials that Symes' team has been focusing on for a couple of years is hemp, and how to incorporate it into their builds. Since it costs more than traditional construction, he says one needs a really strong client-focused objective to consider it.

Symes is also exploring the idea of using hemp in flooring, walling and coatings in builds, especially when adapting existing buildings, because it's a healthy product and a really breathable material. Bamboo is another material that interests him, given the innovations around structural graded bamboo. "We need to think about how we can have renewable construction systems that have a lesser impact on biodiversity."

DESIGNING SOLUTIONS FOR AUSTRALIA'S HOUSING CRISIS

"I don't think there's one silver bullet to fix it," says Symes, observing that the solution lies not just in design but also regulations.

As a big supporter of transit oriented development because of its social transportation and energy benefits, he hopes it will stop the suburban sprawl and supply more appropriate housing. "I actually think the current New South Wales planning scheme is heading in the right direction. However, I wish it was done 20 years ago."

Symes also underlines the need to use space and materials in a smarter way. Reiterating his point about big houses, he says dwelling size needs rethinking and regulations need to be introduced to allow for easier subdivisions. While some of the recent building regulations make subdivisions more difficult for valid reasons such as fire compliance, Symes believes the government should step in to enable easier subdivision of large houses to provide more housing, which would be one of a myriad of different solutions for the housing crisis.

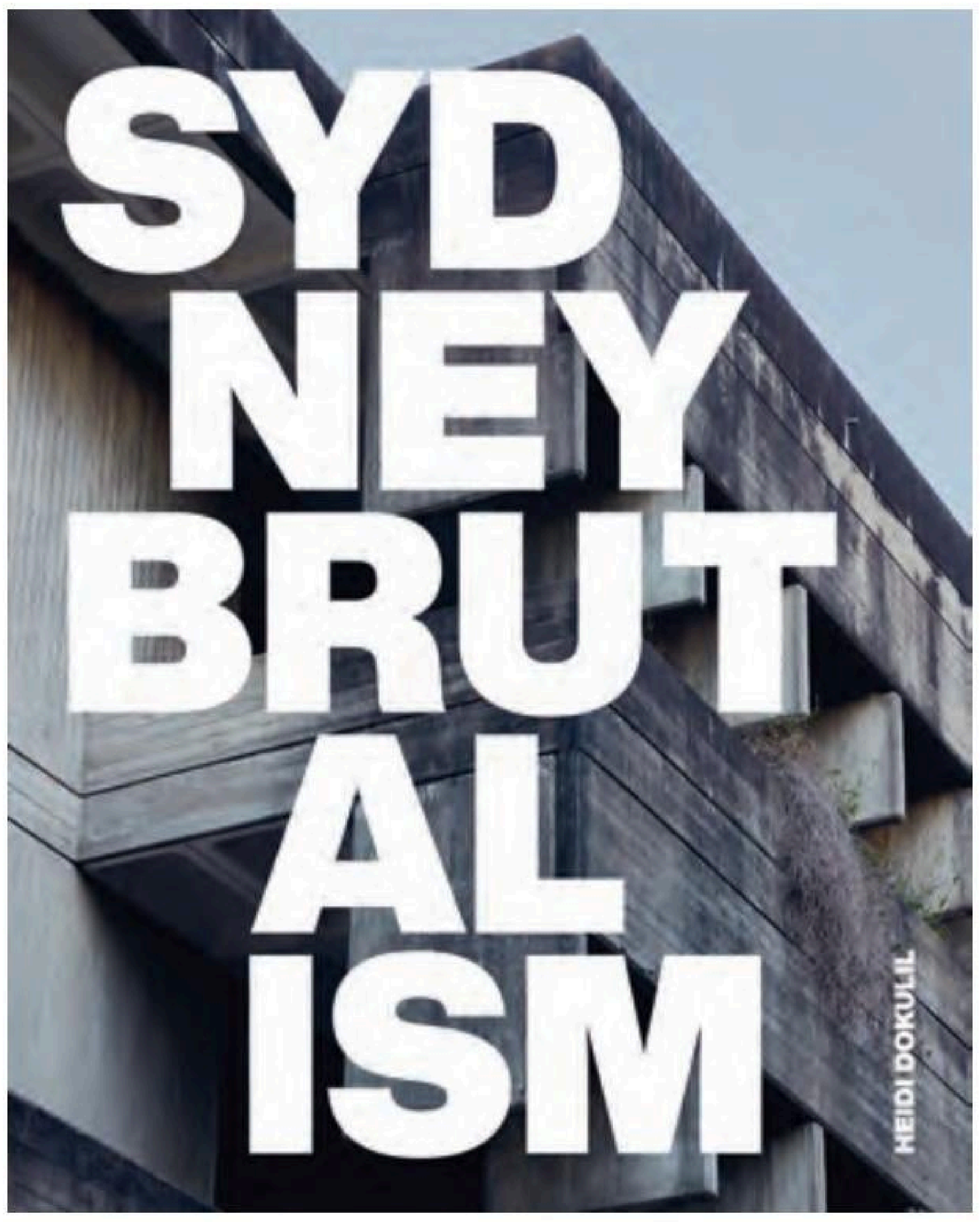
In terms of design solutions from other countries, he says UK's co-housing model with smaller individual lots and shared communal facilities is worth emulating in Australia, so is the Netherlands' Energiesprong program that funds the upgrade of existing buildings to current energy efficiency standards as well as the Canadian government's initiative to incentivise new builds following Passive House standards.

Symes is appreciative of the NSW Government Architect's pattern book initiative that has the potential to deliver scalable solutions for housing. "It needs to have good design quality and something that's simple for approvals and has efficient communication between design and construction. If they get from the concept into reality, it could help to alleviate some of those housing crisis issues."

Film Review: The Brutalist

WORDS HAMISH MCDONALD

The Oscar-winning film The Brutalist has inspired interest in a school of architecture that flourished in Australia. For her recent book Sydney Brutalism, Heidi Dokulil spoke to Architecture & Design.



LEFT Sydney Masonic Centre by Joseland & Gilling_Photograph Max Dupain and Associates Archive courtesy State Library NSW.
ABOVE Cover_Sydney Brutalism_NewSouth Publishing_Photograph Kuring-gai College by Anthony Basheer.

HAMISH McDONALD: How have architects judged the film?

HEIDI DOKULIL: Those I've talked to feel it's a very inaccurate portrayal of an architect. To me the film is less about architecture and more about a story that so many people can relate to. Fleeing your country because of war and persecution and how you rise from that. It's an epic tale, and architecture is only part of it. I loved the movie.

HM: Do architects like the word 'brutalism'?

HD: It's a divisive word brutalism. The architects I interviewed would argue their buildings were not brutalist and they were all doing their own thing. But as John James who designed the Reader's Digest has said, the word does get attention. Like many modernist buildings in Sydney, most bruts are not protected; this one by Joseland & Gilling is now. The City of Sydney was instrumental in identifying some of the key moderns to list, including this one, and Town Hall House by Anchor Mortlock & Woolley. Some have high-level state heritage protection, like Kuring-gai College but that's unusual. Penelope and Polly Seidler do a lot of work to protect Harry's buildings. But others are not looked after, even though concrete is the perfect, lasting material, not like sandstone where you lose a layer every time you clean.

HM: The film's cutaway to the marble quarry at Carrera in Italy, and the use of marble in the building doesn't seem to be a brutalist thing?

HD: Yes, concrete is really 'the' brutalist material in its raw form, off-form or pre-cast, and not painted and left with all the detail and the texture. You can see it here in the Masonic Centre: the timber boardmarked concrete, that beautiful, crafted texture. It's the craft in the making, and those builders were craftsmen. But we also have timber, stone and brick left unadorned and you can see all the details. The Sydney School was the starting point for raw materials that became expressed in concrete. Ken Woolly in his houses on the North Shore, and John James, they used raw brick and timber, a bit of concrete. Then the Harry and Penelope Seidler House at Killara – very raw and all about form making in highly crafted concrete and stone.

HM: Harry Seidler came out of the Bauhaus school in Germany-Austria, so what was the cross-over from Bauhaus to Brutalism?

HD: The Bauhaus was part of modernism. It was all about rationality, function, minimising excess, getting down to the purist essence of what a building could be. With brutalist buildings, they are clear expressions of form and function in concrete. The architects all worked closely with engineers, they knew how every bit of the building worked and gave form to those structural elements. Extruded sunshades, soaring columns, cantilevered staircases. Michael Dysart told me he nearly got fired over the atrium space in the UTS Tower. The government architect Ted Farmer called the engineering 'radical' and the 32-metre span beams a risk. To save his job, and the project, Michael took the team down to a bridge being built at Brogo and showed them a similar box system and only then did the project continue.

HM: A lot of the best-known brutalist buildings are institutional like this one, or Kuring-gai College in Lindfield. They are for the public to use, but meant to inspire a bit of awe.

HD: Yes and no. The newer universities were called the "gum tree universities" – Macquarie, James Cook, La Trobe. They often engaged government architects, wanting to create buildings that were high quality, open, airy and light. They made you feel elevated like grand churches, particularly Gothic cathedrals. But if you look at the former Eastern Bloc, the examples there were more about domination and control. Awe with the fear factor. However, there's a new appreciation for those buildings too partly because of the books by Zupagrafika so they're enjoying a cosmic shift.

HM: I guess the masons who commissioned this building wanted to maintain an atmosphere of power and secrecy.

HD: Before they put on this glass façade, you would have gone in through quite a small opening in a grand and imposing façade. Inside it has five metre or more high columns which are all concrete cast on site, and these sculptural staircases that wrap around them. Glenn Harper said you just wouldn't be able to make this building now; the length of timber that you would need to craft it in-situ, the cost of doing it. A lot of these buildings are absolute one-offs.

HM: Why did Sydney become such a centre of brutalism in Australia?

HD: The NSW Government Architect's Branch was a hotbed of concrete innovation and the flavour of brutalism here is different. In my opinion, one of the best examples is the Kuring-gai College, designed by David Turner at the Government Architect's Branch, that literally rises up from the bush. So there's a very close relationship between the landscape and the building, quite unique to Sydney: the colour of the gum trees against the concrete, the shadowing, the changing light across the raw concrete form. Everyone who works there says it's their favourite building to spend time in, a good sign of a great building. It's definitely one of my top five Sydney bruts.

HM: What are the other four?

HD: The Harry and Penelope Seidler House in Killara. In a similar way that expression within the bush, the entry bridge, the changing scale inside, the open stairs, the light, the cantilevered balconies, the landscape. Then there's the government's former Department of Mines Building at Lidcombe that's empty now and I'm hoping it won't be demolished.

HM: That leaves two more.

HD: Of course Sirius [the former public housing block overlooking Circular Quay, now converted to luxury apartments] is one of them. It was the first brut I fell for and it was the catalyst for the book. It's still part of Sydney's psyche and it was incredible to see so many Sydneysiders involved in the campaign to save it.

HM: One more.

HD: The Sydney Opera House. It's definitely not called a brutalist building, but it has breathtakingly beautiful brut details: the interior of expressed concrete, those extraordinary structural ribs left raw. When the concrete ribs were revealed, Utzon is said to have promised that he'd never paint what he described as the best concrete in the world.

HM: Are we adding enough of these buildings to our conservation list?

HD: Modernism is not getting protected fast enough. It is such an important part of Sydney's story: local and emigré architects, with new ideas, experience working with a board palette of materials and interesting ways of expressing form. I think they believed in something bigger than themselves. There was a strong social connection: they designed civic buildings that would last, they helped define cities and the people who lived there too. I think cities without architectural diversity are boring, we need all the interesting layers.

CPD ONLINE

FREE. ONLINE. ON DEMAND.

CPD Live is an innovative, dynamic platform that gives you access to CPD education online for free.

1 FORMAL CPD POINT

Earn formal CPD points

Get the latest knowledge

Online and 100% free

Browse our extensive library of up-to-date CPD presentations hosted by industry experts across a wide range of products and topics.

Earn CPD points anytime, anywhere.

POWERED BY

ARCHITECTURE & DESIGN

IndesignMediaAsiaPacific
Digital | Experiential | Content | Strategy

Capral launches advanced Revit 3D Model Library for Commercial Systems

Capral Aluminium has announced the release of its new Revit 3D Library for Commercial Widow and Glazing Systems, offering architects and building designers access to a refined suite of BIM content designed to streamline window specification and enhance documentation accuracy.

Developed in collaboration with IGS BIM Solutions — Australia's leading BIM content specialists — and shaped by input from prominent architectural practices, the Capral Revit Library delivers a high-performing, user-friendly solution for integrating aluminium windows and doors into Revit-based design workflows.

The library includes 3D content for Capral's widely specified AGS and Artisan Window and Door Systems. It covers awning, casement, sliding, double-hung, louvre, and folding windows, curtain walls, and hinged, pivot, sliding, and folding doors. Recessed, cavity, and corner door configurations are available to support a broad range of project requirements.

According to Capral National Specification Manager Brendon Orth, the new content has been meticulously developed to meet the evolving needs of the design community.

"The Revit library was created with a strong focus on usability and performance," Orth says. "We've ensured that the families are intuitive to use, visually clean, and optimised for documentation—while still maintaining the flexibility and accuracy required for today's commercial projects."

> *"We've ensured that the families are intuitive to use, visually clean, and optimised for documentation—while still maintaining the flexibility and accuracy required for today's commercial projects."*

Key features include wall-based families with built-in sidelights and overlights, minimising the need to load multiple variations for common design scenarios. Curtain wall content is also provided for advanced façade applications. Families are modelled at a simplified Level of Detail (LOD) to ensure efficient file performance, without compromising on the essential information needed for schedules and construction documentation.

The inclusion of smart 2D construction details—with selectable head, jamb, and glazing options—offers designers a practical tool for developing accurate and consistent detailing. Other thoughtful touches include panel size and weight notations with built-in warning text, easy-to-understand parameter naming, and height controls that adjust from the head down, rather than the sill up—more closely reflecting installation realities.

"We've taken the time to incorporate best-practice modelling techniques and align with Revit standards, so designers can work more efficiently and with greater confidence," Orth notes.

To further support ease of use, Capral has introduced a Revit 'Virtual Showroom' project file. This preloaded environment includes all available families, laid out in a logical and accessible format for browsing, quality assurance, and seamless content integration.

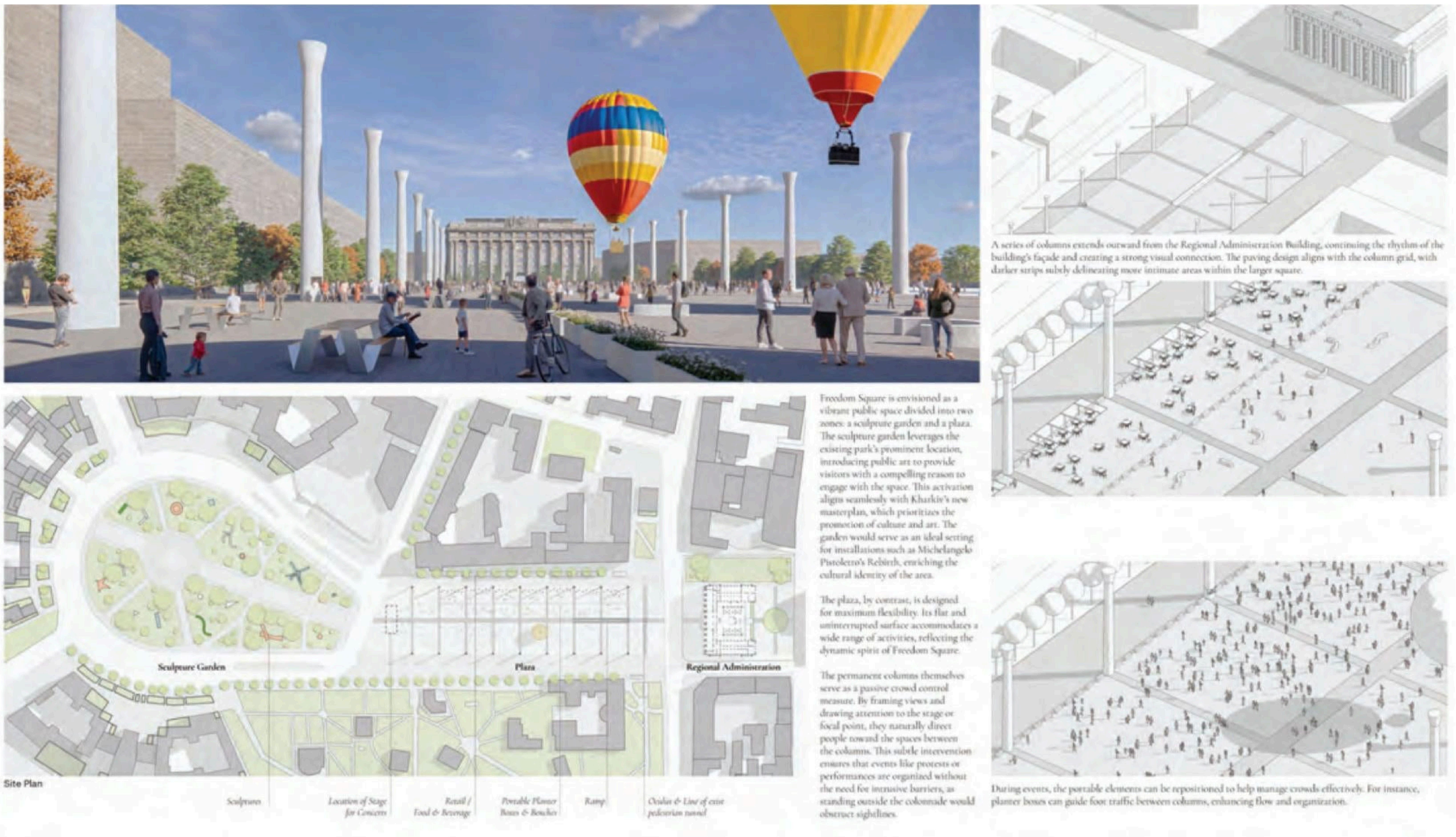
The Capral Revit Library will be available for download via BIMcontent.com and the Capral website, and can also be accessed directly within Revit via the BIMcontent.com Revit Plug-in.

"This library reflects Capral's commitment to supporting the architectural community with tools that enhance design precision and streamline project delivery," Orth concludes.

With high-performance BIM content tailored to real-world specification needs, Capral's latest release represents a significant step forward in digital design support for aluminium commercial systems.

BIMcontent.com Partner

CAPRAL ALUMINIUM



Sculpteure Garden
Plaza
Regional Administration
Site Plan
Sculptures
Location of Stage for Concerts
Retail / Food & Beverage
Portable Planter Boxes & Benches
Ramp
Oculus & Line of exist pedestrian tunnel

A series of columns extends outward from the Regional Administration Building, continuing the rhythm of the building's façade and creating a strong visual connection. The paving design aligns with the column grid, with darker strips subtly delineating more intimate areas within the larger square.

Freedom Square is envisioned as a vibrant public space divided into two zones: a sculptrute garden and a plaza. The sculpture garden leverages the existing park's prominent location, introducing public art to provide visitors with a compelling reason to engage with the space. This activation aligns seamlessly with Kharkiv's new masterplan, which prioritizes the promotion of culture and art. The garden would serve as an ideal setting for installations such as Michelangelo Pistoletto's Rebirth, enriching the cultural identity of the area.

The plaza, by contrast, is designed for maximum flexibility. Its flat and uninterrupted surface accommodates a wide range of activities, reflecting the dynamic spirit of Freedom Square.

The permanent columns themselves serve as a passive crowd control measure. By framing views and drawing attention to the stage or focal point, they naturally direct people toward the spaces between the columns. This subtle intervention ensures that events like protests or performances are organized without the need for intrusive barriers, as standing outside the colonnade would obstruct sightlines.

During events, the portable elements can be repositioned to help manage crowds effectively. For instance, planter boxes can guide foot traffic between columns, enhancing flow and organization.

A clash of civilisations: Urban design meets geopolitical reality

EDITED BY BRANKO MILETIC

Jansen Che, says the achievement is particularly meaningful because Norman Foster, someone who he has looked up to throughout his career, chaired the jury.

ABOVE Jasen Che / Supplied.
LEFT As one of the largest squares in the world and surrounded by heritage buildings, Kharkiv's Freedom Square has a very monumental scale to it.

"To me, architecture is inherently optimistic. It has the power to inspire, uplift, and connect people," says Sydney-based award-winning architect Jansen Che, who was recently announced as one of three winners of the Norman Foster Foundation Kharkiv Freedom Square Revival design competition.

As an architect with over a decade of professional experience designing everything from home renovations and heritage projects to high-rise towers, Che sees the competition as an opportunity to contribute to the revival of Ukraine. Initiated by the Norman Foster Foundation along with the Kharkiv City Council as part of the larger concept masterplan for the city, the competition sought design proposals from local and international architects for the Regional Administration Building as well as the public realm of the adjacent Freedom Square.

Che, who also teaches at the University of New South Wales and is an assessor for the NSW Architects Registration Board, says the achievement is particularly meaningful because Norman Foster, someone who he has looked up to throughout his career, chaired the jury.

Elaborating on the competition, he says that Kharkiv's proximity to Ukraine's border with Russia also meant that it was one of the first places to be affected by the ongoing conflict. As Ukraine's second largest city, it's also considered to be a significant cultural, educational and industrial hub. With Kharkiv sustaining a fair bit of damage, the mayor saw this as an opportunity to rebuild the city. The site for the competition is located in the heart of the city and comprises of a very large plaza as well as the government building.

DESIGNING FOR COMPETITIONS

Che follows a three-step process when designing for competitions – research, idea generation and presentation. "It's never a linear process for me," he explains. "I often jump back and forth between these steps, but I often spend a lot of time researching in the beginning. I spent the first few weeks trying to understand the brief – the very long and ambitious brief – and then researching precedents and analysing the competition site."

Because he couldn't visit Ukraine, he explored the site on Google Street View, found websites dedicated to the history of Ukraine, studied old historic photos of the site, and watched a number of YouTube videos of Kharkiv's streets and buildings uploaded by locals during the war.

All these resources gave him a good sense of the space, the impressive scale, and more importantly, a feel of the atmosphere there that couldn't be read in the brief. For instance, the videos helped him understand the layout of the underground pedestrian network that connected the government building to the metro station. Incidentally, all the metro stations were retrofitted during the war to accommodate classrooms for kids so that they could study without worrying about being bombed. This inspired Che to design the belowground war memorial as part of his competition entry.

As one of the largest squares in the world and surrounded by heritage buildings, Kharkiv's Freedom Square has a very monumental scale to it. It has the ability to host all kinds of events from concerts and Christmas markets to hot air balloon launches. However, when it's not hosting events, it's rather lifeless and underutilised, which, according to Che, was the main challenge for the competition.

To activate the space, Che's design frames the square with columns that mirror the exact proportions of the columns on the heritage facade of the Regional Administration Building, transforming the plaza into an extension of the iconic building, and reinforcing the connection between the two spaces. "It makes the square a little bit more intimate, and breaks down the space and defines the square a lot more," he explains.

Though the jury had reservations about the grid of columns, which they felt were reminiscent of authoritarian aesthetics, contrasting with the square's identity as a space of freedom and democracy, they were appreciative about how Che's design "preserves the square's openness, maintaining its monumental scale while incorporating modern elements".

THE ROLE OF ARCHITECTS IN SOCIETY

"I think architecture is about improving the quality of life," says Che, who believes design should be thoughtful, innovative and sustainable. "Ultimately, what an architect does is to sell a vision. We are visionaries, and that may be a vision for a bathroom renovation or a vision to plan the city. To me, architecture is inherently optimistic. It has the power to inspire, uplift, and connect people, and I think that was the purpose of this competition."

While the war needs to end first before the masterplan can move forward, Che believes it's commendable that the city is already preparing for the future. "That's how this competition came about. They see this as an opportunity to invest in the future. I think because they have this vision, it helps them stay resilient during these tough times."

Everton Park Library
By Bureau^Proberts
Photography Alanna Jayne McTiernan

Decorative products that deliver on both style and substance.

We're proud to offer a wide decorative range from both EGGER® and MEGANITE®, delivering both style and substance. Our Environmental Product Declarations (EPD's) provide important sustainable product information, ensuring transparency and enabling specifiers to choose ForestOne products with confidence.

ForestOne is an Australian-owned company focused on delivering quality locally manufactured and sourced, wood-based and decorative building products that enable architects and designers to Specify Responsibly.

www.forest.one

Shelving and Ceiling Panels
EGGER Laminate and Eurodekor Panels

Natural
Kendal Oak
H3170 ST12

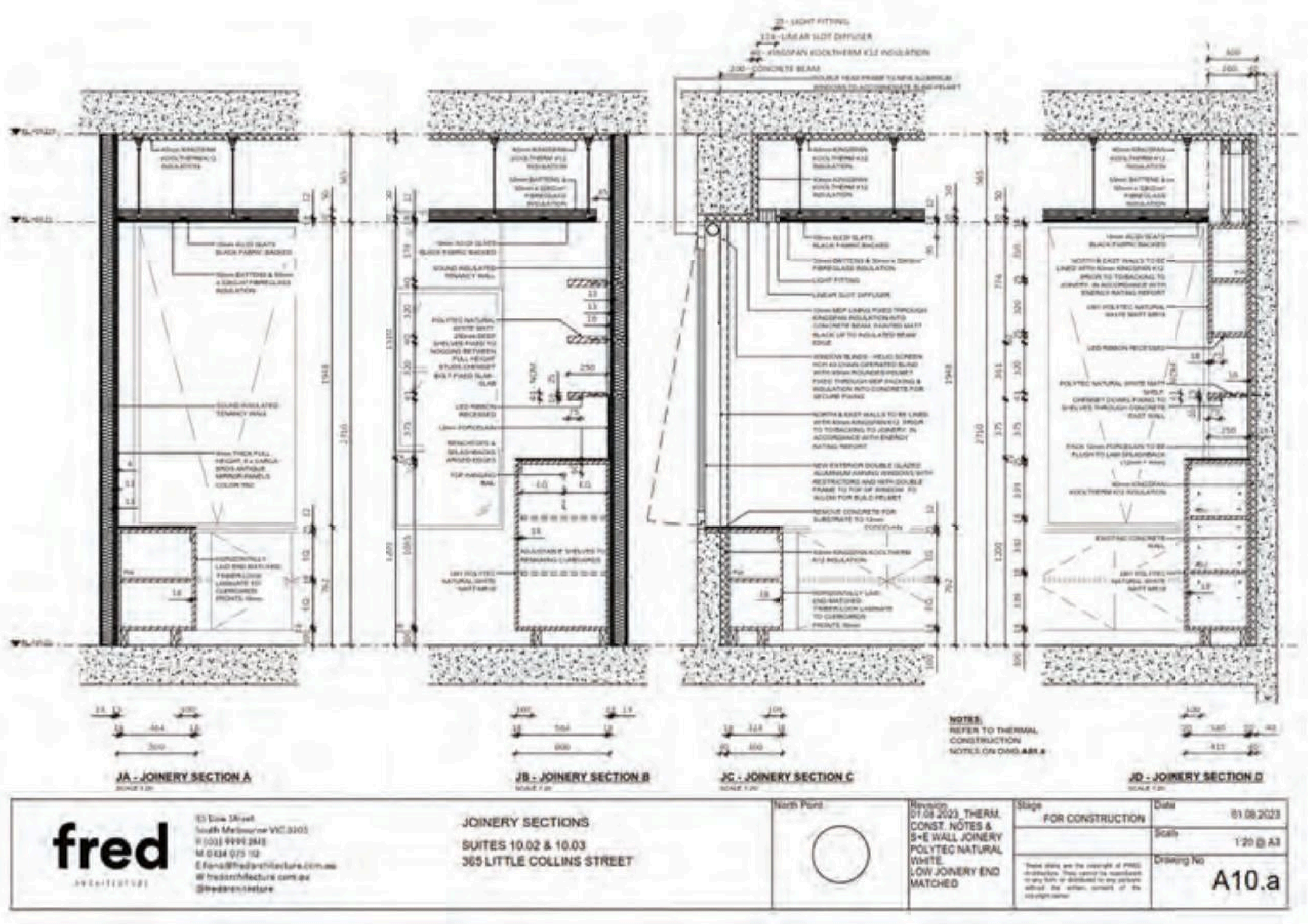
ForestOne®
Specified Responsibly

VIPBAR
LAWYERS AND JUSTICE

Zen Den | Fred Architecture

PHOTOGRAPHER TESS KELLY

Welcome to this 2024 Sustainability Awards Finalist, the Zen Den, where modern elegance meets energy efficiency. What was once a series of dreary old dog boxes has been reimagined into a stunning, functional, and inviting legal office.


NOTES:
REFER TO THERMAL CONSTRUCTION NOTES ON DWG A01.a
JA - JOINERY SECTION A
JB - JOINERY SECTION B
JC - JOINERY SECTION C
JD - JOINERY SECTION D
fred
ARCHITECTURE
JOINERY SECTIONS
SUITES 10.02 & 10.03
365 LITTLE COLLINS STREET
North Point
Revision
01.08.2023_THERM. CONST. NOTES & S+E WALL JOINERY POLYTEC NATURAL WHITE. LOW JOINERY END MATCHED
Stage
FOR CONSTRUCTION
Date
01.08.2023
Scale
1:20 @ A3
Drawing No
A10.a

PROJECT CREDITS

Design/Architecture Firm Fred Architecture
Project Location 365 Little Collins Street Melbourne 3000
Project Lead/Director Fiona Winzar

From the architect:
The design is inspired by our client's love of Japan and Japanese martial arts, the idea that an office can feel more like a home, and the benefits of prioritising energy efficiency and sustainable design practices. Drawing from Japanese aesthetics, we have created a serene environment using minimalist design principles and natural materials.

The layout accentuates the length of the space by running key elements east-west. This includes the integration of east-west laid floorboards, matching Tasmanian oak joinery, and beautiful acoustic timber ceiling battens.

Existing north-facing openings were utilized to maximize passive design opportunities, enhancing natural light and ventilation. A central dividing wall is positioned away from the north wall lined with repeated window bays, further enhancing the sense of openness.

To connect and open both spaces to one another, a super-sized sliding door can seamlessly disappear into the central wall pocket, allowing for a fluid transition between the support staff and conferencing area and the lounge and personal workspace. Tackling access challenges, such as limited lift and stair access, required innovative solutions like installing double-glazed windows from the inside and assembling large sliding doors on-site.

The project emphasised the importance of early logistical planning and adaptability to meet sustainability targets effectively.

Additionally, integrating Japanese aesthetics with sustainable practices demonstrated that eco-friendly design can also be elegant and functional.

LYSAGHT
BOX MODERN STYLE
LYSAGHT
HERITAGE STYLE
LYSAGHT
COASTAL STYLE
LYSAGHT
QUEENSLANDER STYLE
LYSAGHT
HAMPTONS STYLE
LYSAGHT
CONTEMPORARY STYLE

LYSAGHT

INSPIRATION TO BUILD BETTER

As a builder you're well aware of how residential design styles evolve, shaped by advancements in materials, construction techniques, and societal shifts. The challenge is always how to bring this to life for your clients so together you can make informed material selections.

At Lysaght we've captured some of the defining trends of today's residential architecture in our new Design Guides. Developed in collaboration with industry experts, these guides detail six design trends shaping modern Australian homes, and provide an insight into which LYSAGHT® products can be used to create homes that truly reflect contemporary Australian living.

Scan the QR code for more inspiration
on Lysaght's range of Design Guides

COLORBOND®, LYSAGHT® and ® product names are registered trademarks of
BlueScope Steel Limited and ™ product names are trademarks of BlueScope Steel Limited.
© 2025 BlueScope Steel Limited. ABN 16 000 011 058. All rights reserved. LYH2661 - 04/25

LYSAGHT.COM

400 George Street End-of-Trip Facility | nettletribe

PHOTOGRAPHY SCOTT BURROWS

Located in the heart of Brisbane's CBD, the 400 George Street End-of-Trip Facility is a destination designed to provide a luxurious and rejuvenating experience for workers.

From the architect:

The challenge was to create harmony between new and existing building services and to link the existing identity of the existing interior spaces with that of the new facility. Heavy with services below the proposed facility, early design stages were an exercise in methodical spatial planning, that kept in mind these constraints and were functional to the type of facility being created.

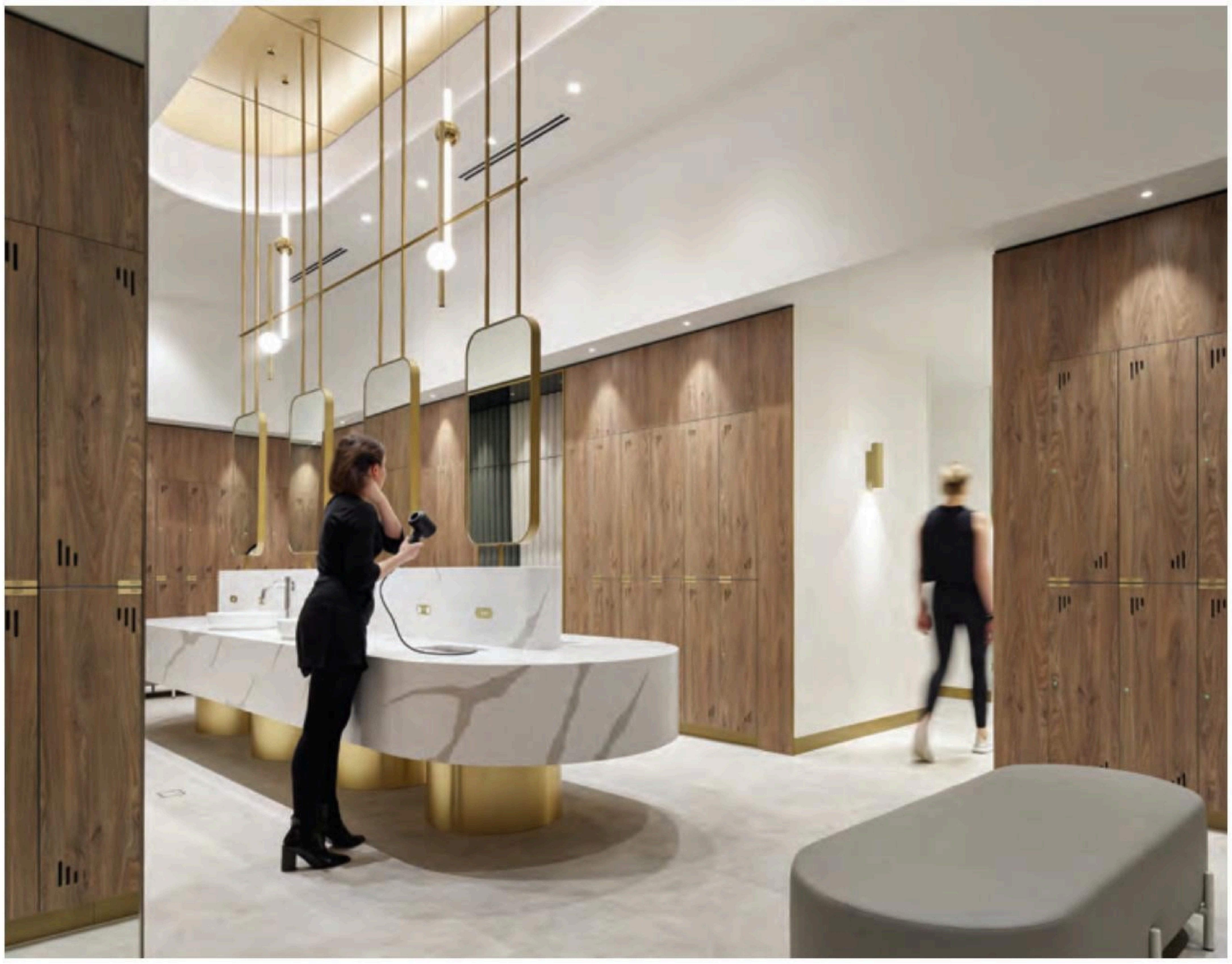
Clear zones were allocated for these amenities and the idea of highlighting these zones through a play on ceiling heights, lighting and the purposeful placement of finishes was applied, resulting in a functional and intuitive layout that worked with the building's existing services.

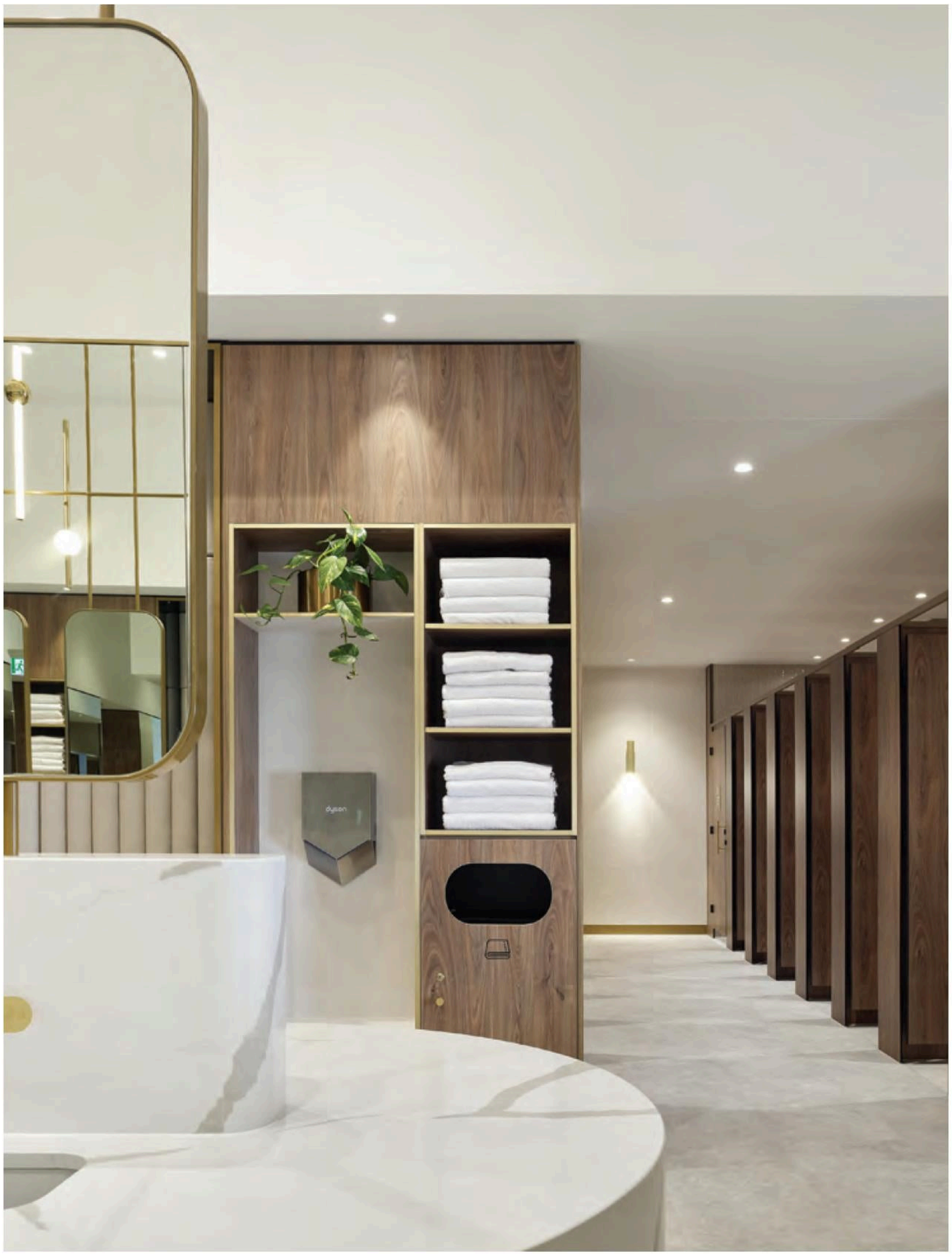
The facility boasts an array of amenities, carefully crafted to promote relaxation and rejuvenation.

It welcomes its patrons openly with textures reminiscent of nature and splashes of greenery, providing a moment to disconnect from the stresses of the day.

The new facility provides occupants the opportunity to be healthy within their work week, by offering a world-class facility to use after their daily exercise routine.

With its striking design and emphasis on functionality, 400 George Street End-of-Trip Facility is set to revolutionise the way people transition from work to personal life, providing a seamless and indulgent experience that sets a new standard for urban wellness.





PROJECT CREDITS

Design team
Justin Morgan (Project Lead + Architect)
Anne Cameron (Director of Interiors)
Amy Gray (Associate + Interior Designer)
Completed 2021

CAROMA
CAROMA

A touchless tap that combines incredible water efficiency with data monitoring.

Caroma Smart Command Series 3 Tapware with advanced precision sensors for touchless activation.

6 Star WELS water flow rates to support Platinum LEED accreditation.

Constructed with lead free brass to meet National Construction Code requirements.

Bluetooth amplified to feed usage data back to building management for predictive maintenance via the Smart Command Cloud platform.

Explore the range on our new Caroma Specify website.
specify.caroma.com.au

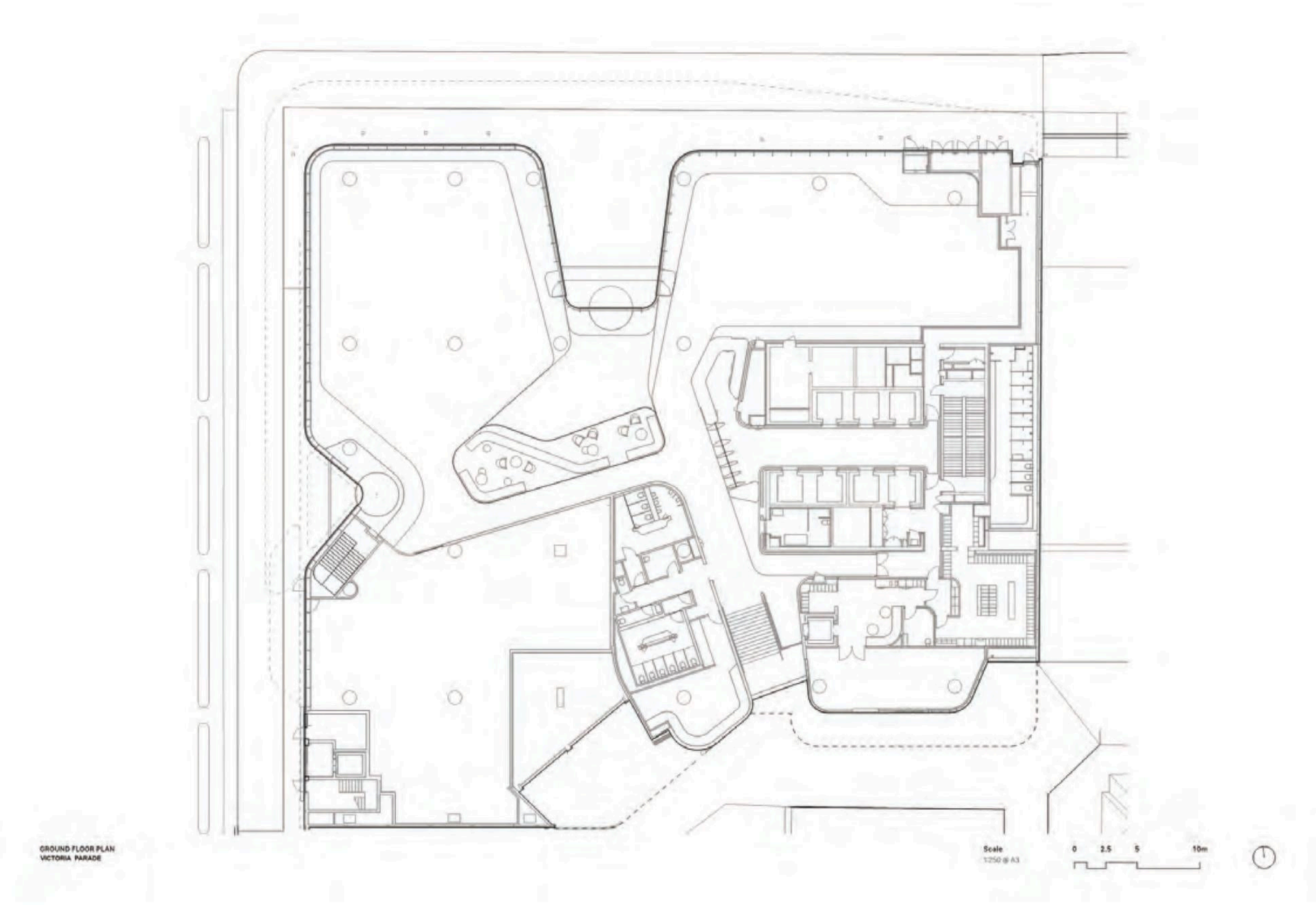
AUSTRALIAN DESIGNED AND ENGINEERED

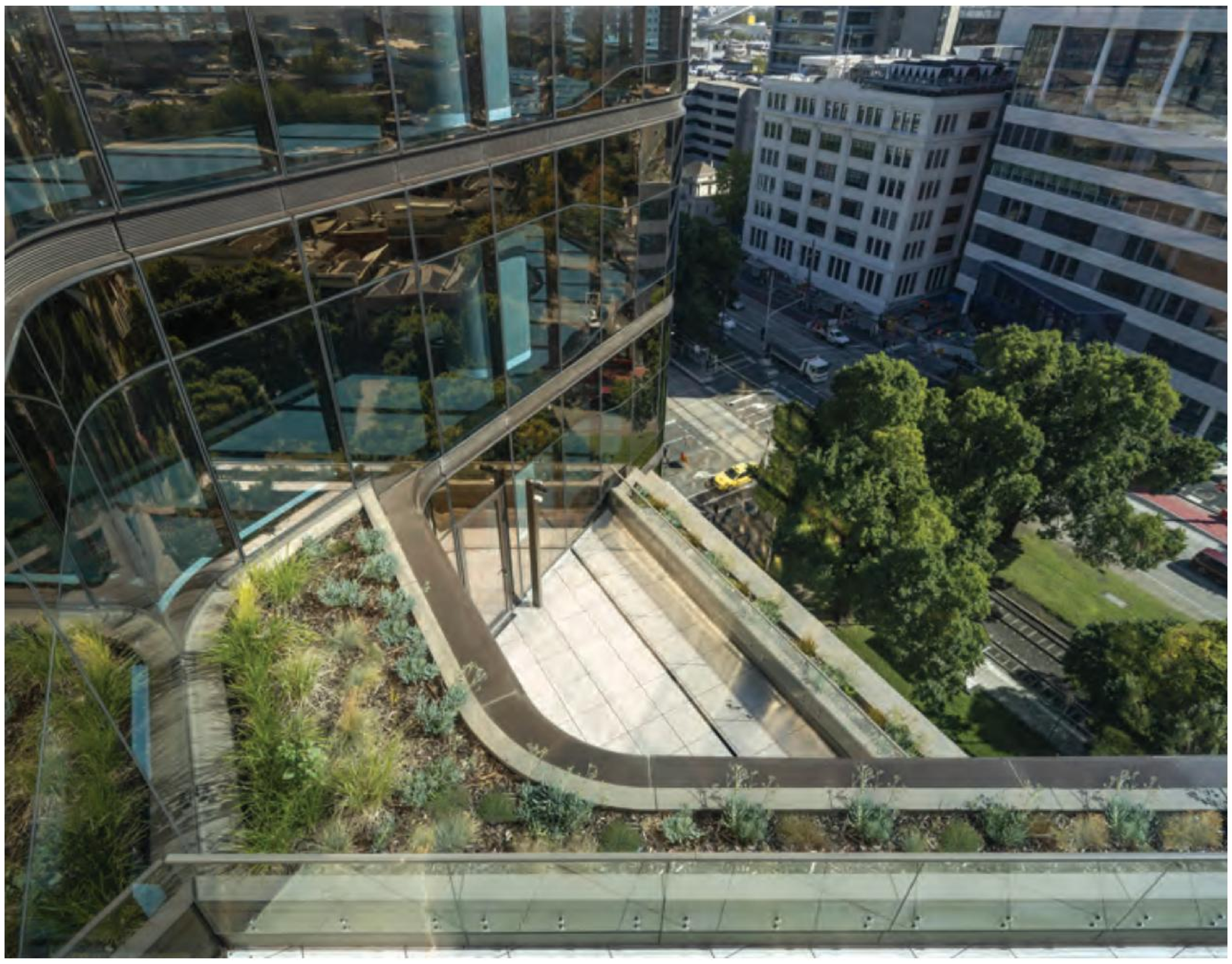
CAROMA
Made For Life

200 Victoria Parade | fjcstudio

EDITED BY BRANKO MILETIC

The 200 Victoria Parade commercial development was a 2024 Sustainability Awards Finalist and involved the construction of a 11-level building (ten occupied office floors) with 3 basement levels.


GROUND FLOOR PLAN
VICTORIA PARADE
Scale
1:250 @ A3
0
2.5
5
10m



PROJECT CREDITS

Architects fjcstudio
Completed 2024
Photography John Gollings

FOLLOW US for more projects like this f in ◎

Responding to new and emerging workplace requirements, the building offers a level of sophistication and ability to respond to the changing and varied needs of a modern contemporary workplace with greater flexibility for prospective tenants and users.

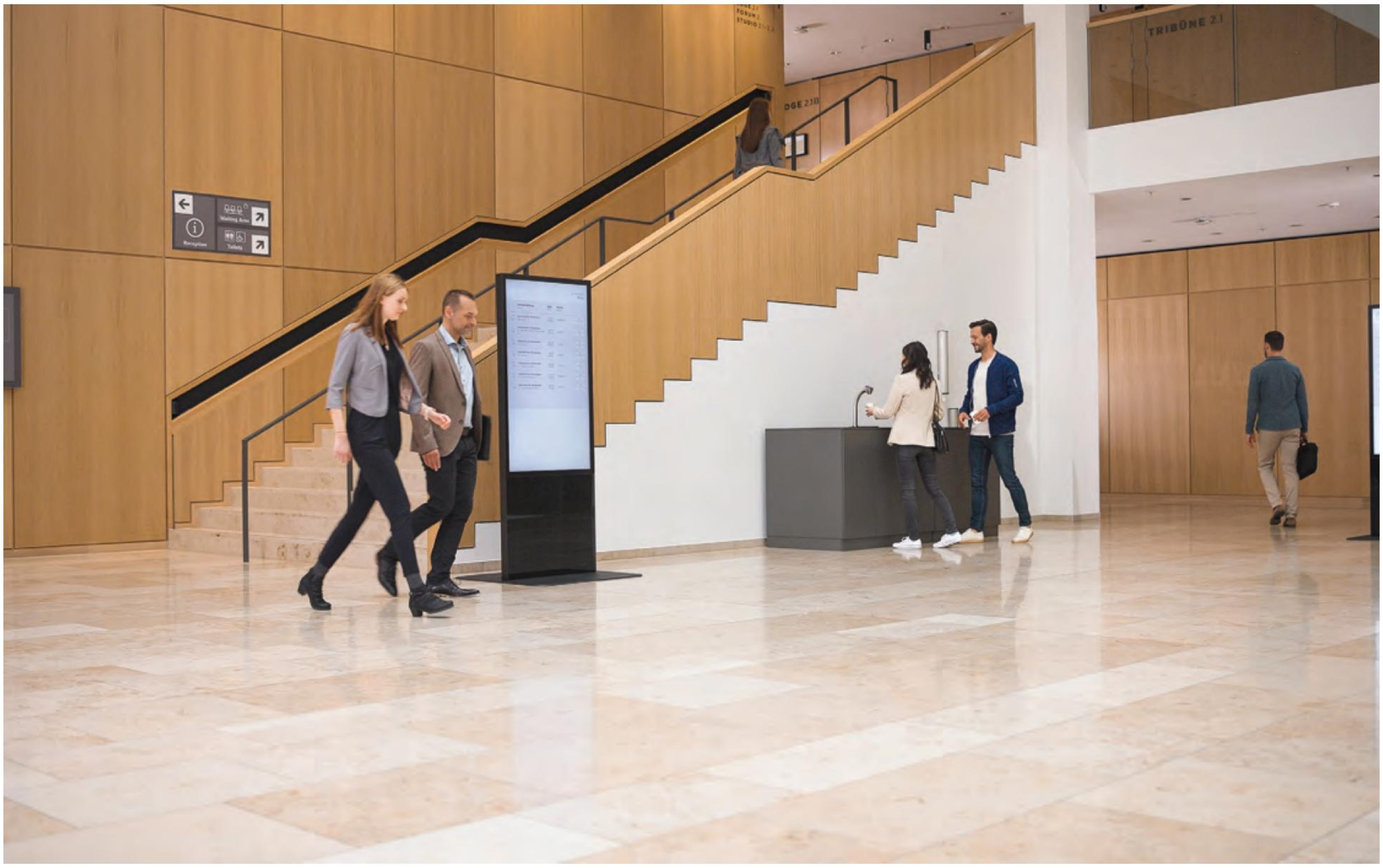
A central recess of landscaped north facing terraces and entrance is aligned to terminate Napier Street, a complementary recess on Landsdowne Street creates a vertical corner form to address the corner with Victoria Parade while framing a sculptural stair and scale transition, and stepped landscaped terraces orientate towards Fitzroy Gardens.

The glazed surfaces incorporate thin copper films of varying density to create higher thermal performance and glare control above more transparent clear vision panels. These layered ribbons are adjusted to address the varying environmental conditions of orientation through curved transitions that adjust the high performance and transparency.

The built form sits comfortably within the streetscape in one of Melbourne's key boulevards and respects views to and from the historic Treasury Gardens to the south.

On top of the Base building to a Green Star 6-Star Design and As Built, 6.0-Star NABERS Energy (Base Building) Sustainable achievement, WELL Gold Certified Building – Core & Shell, the development has also committed to achieve:

- *6-Star Green Star Interiors Design for Level 1 to Level 7 Tenancy Floors*
- *6.0-Star NABERS Energy for Level 1 to Level 7 Tenancy Floors*
- *WELL Gold Certification for Level 1 to Level 7 Tenancy Floors*



Work Reimagined: Shaping Productive Futures Through Design, Intention, and the Right Elements

The physical office, in the year 2035. Though hybrid working is the norm, offices still exist and thrive. For many, their first steps into a company workspace may seem familiar to us today, but a closer look reveals significant changes. You can find sleep pods for midday naps. There's a treadmill built into a standing desk. The conference room is a relaxed outdoor lounge amongst greenery. The technology is there, but it takes time for you to notice it. Screens fit seamlessly into the walls. Cables and wiring are nearly extinct. Wireless glass keypads and control surfaces suggest advanced technology, yet it's all minimal and cleverly concealed. Looking even closer, we find these future offices to be the primary hubs of collaboration and social interaction. Bright, open desks invite discussions. A water dispenser in the studio is an instant social refuge. Finding spaces to exchange ideas is not a random afterthought, but a product of purposeful design.

Today's millennials are the decision-makers of this future, and their appreciation of past challenges manifests in investments in self-care. By 2050, the value of looking after the physical workforce will have tripled because the rise of virtual work has made maintaining a healthy work-life balance more challenging. With the advent of generative AI today, it is certain that our reliance on technology will increase in magnitude. And as we have seen in recent years, the biggest toll taken on the working individual is not just on the physical body, but on the mind. The office of the future evinces the need to look after our mental well-being. Digital noise is everywhere, in many forms, and often around the clock, 24/7. Productivity at work today is often hindered by both physical and virtual distractions, so having a well-designed workplace can no longer be deemed a luxury, but a necessity.

Aspects of clever design will take precedence over traditional thinking. Case in point: that water dispenser in the middle of

the meeting room? It serves multiple essential purposes - it is there by intentional design. The brain itself needs water. Our minds function best when they are healthy and are at peak performance when fully hydrated. The human brain is approximately 73% to 80% water and is essential for cognitive function, as well as mood and memory. Even slight dehydration can negatively impact attention and motor skills.

We must not forget that even if our workplace is highly digitised and automated, the most powerful and productive processor at our disposal is still the human brain. Our brain still decides when AI is implemented, what is proper input, and what is right or wrong. Having a water dispenser where it is needed, where it can be easily accessed and where it makes sense - that is a design function that serves the need for better mental health. A hydrated mind is a healthy mind, and the better access to drinking water your workforce has, the better they can tackle the tasks on hand.

The need for human interaction and connection has intensified due to hybrid and remote work; even more so because virtual, digital work is a very personal, even lonely, task - especially when done at the intense pace demanded by today's standards. In this reality, the social benefits of having a water dispenser in a central area cannot be ignored.

Having a 'water-cooler' conversation with a colleague - a seemingly random chit-chat catchup where you converse about any topic that comes to mind - immediately breaks the monotony of data-processing and ends any imagined isolation. Scientists even attribute physical social connections to better stress management, reduced overall stress and improved sleep quality. The communal water dispenser also provides value through the creation of routine. Having regular trips during the day to refill a drink container stimulates movement and helps create pathways in our minds, similar to taking mini-breaks from stress. Routines provide structure and predictability, something that is rare in a noisy digital space.

Needless to say, aspects of this future office are already here today, brought to life by BRITA's forward-thinking designers. Like a veritable oasis in the desert, the BRITA Top Pro is a commercial-grade water filtration dispenser that provides a choice of four water types: unchilled and chilled still water, chilled semi-sparkling, and sparkling water - all from a single dispenser. Then there is the BRITA Extra C-Tap, a sleek stainless steel on-counter filtration system with a glass touch panel, offering the same water types as the BRITA Top Pro, as well as hot water on demand.

To highlight how clever design can be inclusive, BRITA also offers an accessible control unit. The Easy Access Panel enhances accessibility, fostering a more inclusive working environment. These innovative BRITA designs, which reduce barriers to use, were conceived not just solely for the water filtration needs of the future, but also by a deeper desire to significantly reduce the amount of single-use plastic bottle waste. And to the millennials today who will be aspiring to lead a brighter world of tomorrow, the future starts now.

Design future-ready spaces that perform and promote well-being with BRITA's commercial-grade water dispensers.

BRITA

Ace Hotel | Bates Smart

EDITED BY BRANKO MILETIC

The approach to signage, by Studio Ongarato, pays homage to mass production of interior design throughout the 60's and 70's and Australian modernist architects – a design legacy characterised by bold geometries and brutal, raw materials softened through attention to craft and the context of the natural landscape. The design of the modular signage system embraces the imperfect nature of hand crafts through a combination of carved timber, ceramic blocks and a custom geometric typeface.

← LIFTS
ROOFTOP
RESTAURANT
+ BAR
LEVEL 1
EVENT SPACE

Located in Surry Hills, the site was originally constructed in 1915-16 and dubbed Tyne House. The warehouse references the Chicago skyscrapers of the 1860s. The building was refurbished and added to in the form of an 18 storey tower which comprises 257 hotel rooms.

The existing glazing and brick were retained, with the internals of the existing building altered and moulded with the tower above. The tower celebrates the city's historic grit with an expressed frame that draws on the warehouse style of Tyne House below, and a charcoal terracotta facade reminiscent of the masonry character of the surrounding context. Inside, a number of active spaces feature amongst the entryway including a bar, restaurant and cafe.

"The existing building is not considered a heritage item but is of historical significance to the area. Tyne House was the first high-rise contribution to the warehouse precinct of Wentworth Avenue, known for its rare and early use of concrete both as an encasement to steel framing and as floors," says Bates Smart Director Guy Lake.

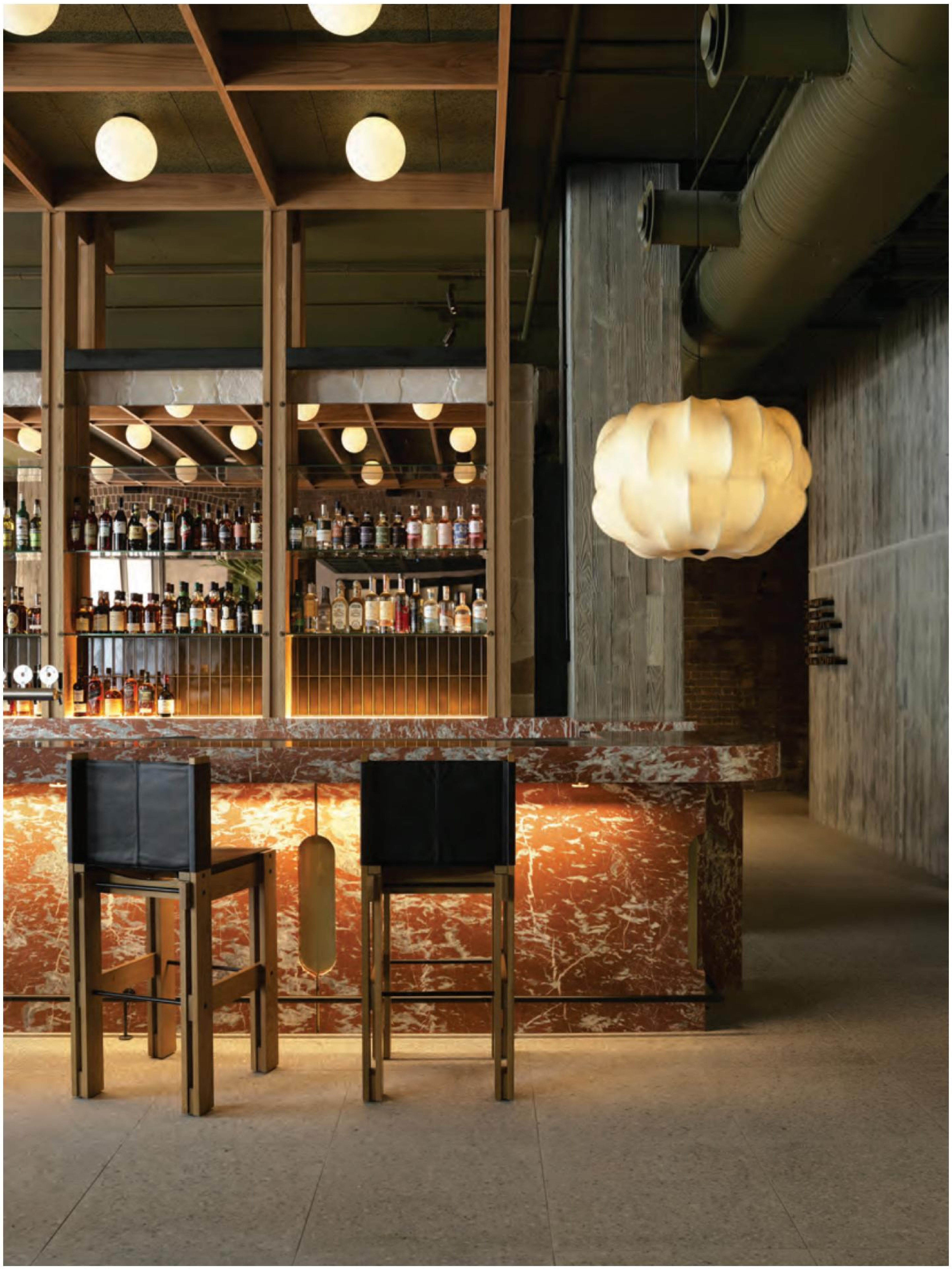
"The inclusion of sliding doors allow the ground-floor café to open up to Foy Lane during opening hours, giving the space an indoor-outdoor feel," says Lake.

"The architecture is the perfect backdrop for Ace Hotel's signature approach of blending history with the contemporary to create bona fide experiences. The building champions the site's rich history, creating a one-of-a-kind landmark for the city fringe and recognising a community with a desire for memorable cultural experiences."

PROJECT CREDITS

Architect Bates Smart
Interiors Flack Studio
Signage Studio Ongarato
Location Sydney, NSW
Completed 2022
Photographer Anson Smart

FOLLOW US for more projects like this



THIS PAGE The Sydney Fish Market's roof has recently been completed / Multiplex

Urban catalyst: Unveiling Sydney Fish Market's new chapter

INTERVIEW AND WORDS CLÉMENCE CARAYOL

Situated on the iconic Sydney Harbour, the renewal of the Sydney Fish Market by 3XN in association with BVN and ASPECT Studios is more than a redevelopment – it's a reimagining of public space, heritage, and urban connectivity.

Once confined by industrial remnants and cut off from the waterfront it served, the market is being transformed into a vibrant civic landmark, where sustainability, inclusivity, and authenticity converge.

Clémence Carayol from *Architecture & Design* sits down with 3XN Partner Fred Holt, Copenhagen-based 3XN Senior Partner Audun Opdal, and BVN Principal Catherine Skinner to discuss the design principles guiding the project, from climate resilience and innovative construction, to cultural storytelling and community engagement. The design team is adamant: the renewed market will honour the site's historic identity while embracing the future.

CLÉMENCE CARAYOL: What are the key architectural principles guiding the renewal of the Sydney Fish Market, and how do they reflect the site's cultural and historical significance?

FRED HOLT: Sydney's Harbour is the city's defining feature: the two are indivisible. The harbour's edge, particularly around Sydney's centre, is dotted with landmarks that showcase its rare natural beauty and reinforces its renown around the world. The existing Fish Market, currently housed in a series of old warehouses and post-industrial buildings, is a bustling community and tourist destination in the city – but it has outgrown its current facilities and is walled off from the water just beside it.

Our winning competition proposal envisioned a building not just capable of handling the operational complexity of a working fish market, but that would be worthy of Sydney's iconic waterfront. Once completed, the market will serve multiple purposes: as a working fish market, an amenity for the city, a cultural destination, an urban connector, community catalyst and an inspiring icon along the world-renowned Sydney waterfront.

The new Sydney Fish market will act as a community catalyst, bringing locals back to the market more regularly, while maintaining the authenticity of an operating fish market by allowing the operations and product movement be the backdrop for visitors.

CLÉMENCE CARAYOL: What measures have been taken to improve accessibility and inclusivity within the new development?

FRED HOLT: The new market improves accessibility and inclusivity by addressing one of the key challenges of the existing fish market, where tourists often disrupt industrial operations, creating conflicts with goods movement and restricting visitor access.

Our design physically separates operational areas from public spaces, while maintaining visual connections. The promenade lifts over the operations of the market below, allowing seamless public access without interfering with seafood delivery, wholesale, and processing. The promenade stairs, located on each face of the building, continue the landscape into the market, offering multiple entry points. These stairs undulate from ground to upper ground, leading visitors to the retail level while also serving as amphitheatre seating with views of the bay and Anzac Bridge, or the two community plazas. These large civic gestures allow space for all visitors, whether retail patrons or not.

By maintaining a human-scaled retail floor, the new market preserves the lively atmosphere of traditional marketplaces while ensuring a more inclusive and accessible experience for all.

CATHERINE SKINNER: The new market enhances access to and movement along the harbour between Pyrmont and Glebe, connecting to public transport, a future ferry terminal and shared pedestrian/cycle ways. While the design incorporates a significant level change, lifts to the east, south and west ensure equitable access around the building. An Adult Changing Place and Parents' room will improve the visitor experience. The Upper Ground, connected by large gently graded staircases will be accessible 24 hours, ensuring continuous public engagement with the waterfront.

ABOVE The market is situated on the iconic Sydney Harbour / Sara Vita

CLÉMENCE CARAYOL: How will the redesign enhance the experience for both local visitors and international tourists while maintaining the market's authentic character?

FRED HOLT: By extending the foreshore promenade, the new Sydney Fish Market connects Blackwattle Bay to the city's sequence of waterfront destinations, increasing accessibility and engagement with the harbour across the city. Unlike the existing market, which is walled off from the water, the new design opens up to its surroundings, offering ample public space and direct waterfront access.

The promenade stairs, located on each face of the building, provide seamless entry while doubling as amphitheatre seating with views of the water and Anzac Bridge.

The sweeping roof canopy, with its modular skylights sitting atop its striking timber structure, unifies the building's diverse functions while enhancing sustainability through shading, daylighting, ventilation, and rainwater and solar energy harvesting. While these functional features may be invisible to the visitors' eye, they are essential components of the experience of the new Sydney Fish Market.

CATHERINE SKINNER: The market's industrial character has been retained, making the busy loading dock, wharves and auction operations visible to the public, while elevating the experience through improved sightlines, daylight penetration, and an interconnected layout that facilitates the narrative journey from harbour to plate.

CLÉMENCE CARAYOL: What innovative construction techniques or material are being utilised to ensure durability and longevity, given the waterfront location?

FRED HOLT: One of the standout design features in the new market is that of the roof, which packs a huge amount of complex considerations into its elegant, sweeping form.

The roof shape was designed to resolve several design and construction constraints through a simple undulating surface that collects every drop of rainwater at its two low points, and a skylight roof cassette that can fit with the angles of the timber roof beams below, while providing ample amounts of daylight. Functionally, the roof takes on additional qualities (beyond that of shelter).

Rainwater collection and redirection: The curvature of the roof is primarily driven by the need to redirect rainwater. With the expression of the soffit (underside of the canopy) a key architectural focus, and one which enhances the visitor experience of the space, it was crucial to avoid visible services and downpipes, and the ability to have water directed on the surface of the roof, rather than through traditional downpipes was therefore critical. Through parametric modelling, the roof form was therefore conceived as a landscape to direct rainwater, ensuring all rainfall flowed into two low points, or basins, in the roof for rainwater harvesting. The rainwater is then collected, filtered and reused, reducing water consumption by 50%.

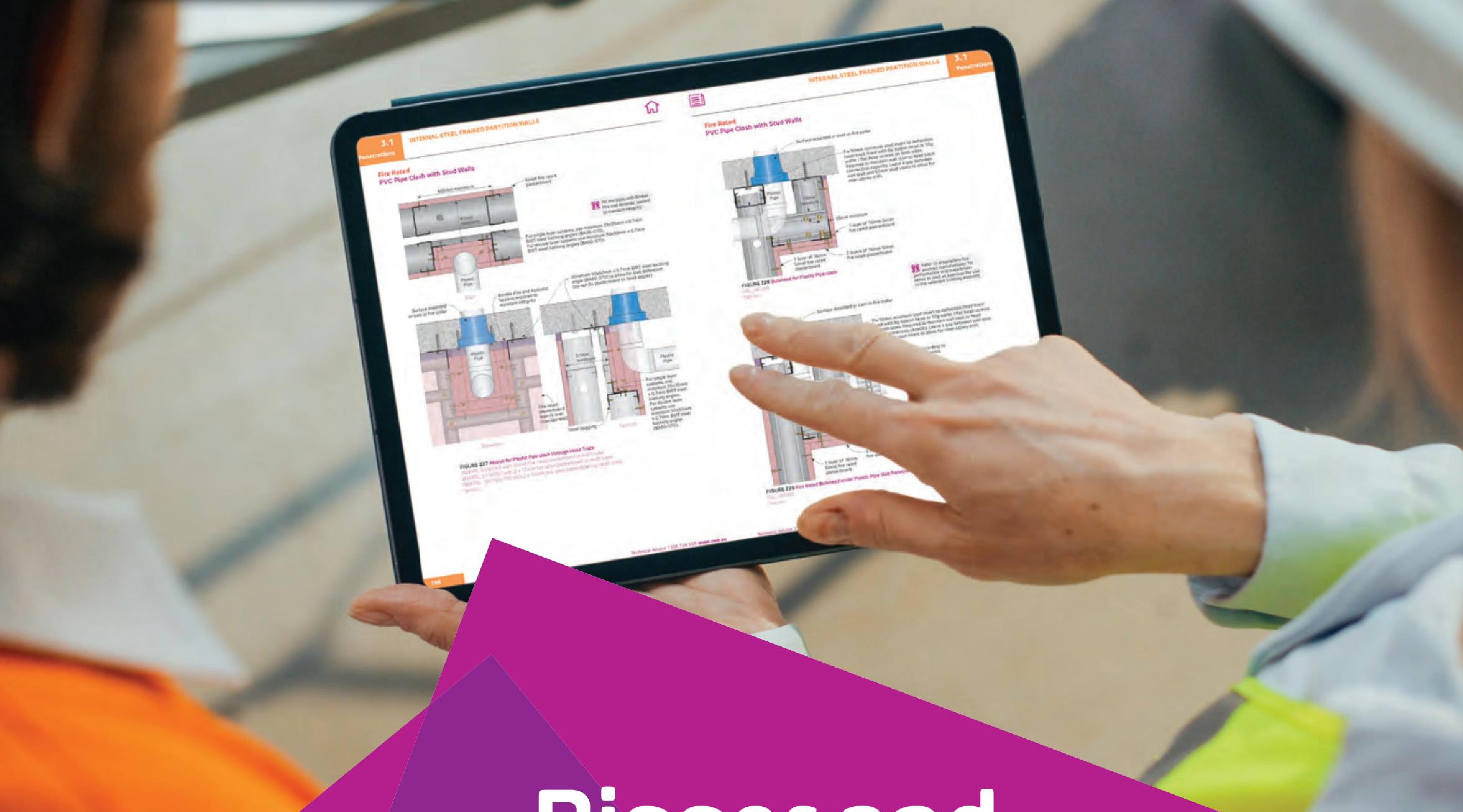
AUDUN OPDAL: Natural daylight: With such an expansive roof surface, you run the risk of the interior space becoming very dark. Wanting to reduce energy loads and bring natural daylight into the upper ground market hall (while blocking the strong, direct sunlight that comes from the north in the southern hemisphere), the 311 of the 406 cassettes above the market hall have south facing skylights to allow an even, southern natural light.

We knew fairly early on that we would need to design a modular, three-dimensional surface that would both provide market hall canopy feel, while providing natural daylight and views to sky. We tried a few options, in the end, the pyramid modules were the best, strongest, and most beautiful option (and consequently, resembles fish scales).

When it comes to ventilation: A fish market obviously needs to be kept cool – and a space this large would require enormous amounts of energy to artificially maintain the temperature.

siniat

siniat
blueprint
Lightweight Construction Manual
etex inspiring ways of living



Bigger and better Blueprint!

Siniat, the experts in lightweight construction, have just updated their Technical Manual, Blueprint. This valuable resource now contains more than 800 pages of information, technical drawings and construction details for more than 900 NCC compliant wall & ceiling systems.

Blueprint has been optimised for online use and contains handy hyperlinks, QR codes and quicklinks to the relevant sections for easier reference.

Scan the QR code to download Blueprint now!

siniat.com.au

etex inspiring ways of living

With our push for sustainability, passive systems were designed to increase the human comfort level in the common spaces of the open air, upper ground retail floor level.

FRED HOLT: To help maintain the indoor temperature, the roof again was a sensible place to look at this (as it evenly covers the whole surface, ensuring that we wouldn't get different temperature pockets across the hall). The canopy sits above the program boxes below, allowing air to flow through the upper ground floor level, helping to reduce energy loads by ca. 35%. The near white roof's external surface colour helps reflect heat away from the patrons below.

AUDUN OPDAL: Solar energy harvesting: The large roof surface provides the perfect venue for photovoltaic panels. Panels are mounted on the western face of each of the pyramid roof cassettes. They not only block the direct, harsh western sun, but simultaneously convert it to energy, helping to reduce the overall energy loads. GXN, our in-house sustainability arm, modelled the potential for this, and helped inform the design with product selections which could deliver on the design intent for a white roof.

CATHERINE SKINNER: An innovative Japanese piling system, known as Giken, or Silent Piler, was essential to building the coffer dam – a vast bathtub in reverse – with minimal environmental disruption, to establish the work site. A robust materials palette, including ceramic tiles, marine-grade concrete, timber and corrosion-resistant finishes ensures durability on the waterfront. Prefabrication techniques have been employed to enhance precision and minimise on-site environmental impact. Given the complexity of site access, the roof materials were required to be staged off site and delivered to the project by barge, the prefabrication of roof modules was essential, not only to accelerate construction but also to manage the quality of the waterproofing, PV panels and integrated services.

CLÉMENCE CARAYOL: How has the surrounding urban landscape and transport infrastructure influenced the architectural design of the renewed market?

FRED HOLT: The new Sydney Fish Market sits at the head of Blackwattle Bay with a development footprint of approximately four hectares and its roof canopy nearly two hectares. The design capitalises on the opportunity to connect the bay to the north visually with Wentworth Park to the south, and the community to the east and west with the new building as a cultural icon. Envisioned to be a tourist destination, the new Sydney Fish Market will facilitate interaction by combining an ample amount of public space with an authentic market. As an operating seaport and wholesale operation, it is crucial that the new facility balances the industrial and recreational functions harmoniously. Additionally, it goes beyond its immediate role of the sale and distribution of seafood and creates an array of varied experiences that enable change and responsiveness to the future, creating a landmark for locals and tourists alike that is an integral part of the city fabric. An industrial typology is typically a very introverted focus building, yet the design makes it a more extroverted offering, putting on display, the operations of a functioning fish market, and making it an active part of the urban landscape, while connecting to place; creating an authentic destination.

CATHERINE SKINNER: The market is positioned as an urban catalyst, establishing a civic anchor to the future Bays Precinct redevelopment. 3XN's design incorporates multiple entry points corresponding to different transport modes—from a future ferry terminal and cycle path connections to pedestrian links and ride-share drop-offs—ensuring the market is truly accessible, while also prioritizing public access to the waterfront.

In what ways does the new design address climate resilience, particularly in relation to rising sea levels and extreme weather events?

AUDUN OPDAL: The new Sydney Fish Market design addresses climate resilience by prioritising natural light and ventilation, rainwater collection and redirection and solar energy harvesting, while also incorporating a modular design for flexibility and sustainability. The design also aims to minimise waste and ensure efficient building processes. (See the detailed answers regarding innovative construction techniques above.)

CATHERINE SKINNER: The building is elevated above projected flood levels, incorporating resilient landscaping and permeable surfaces to mitigate stormwater runoff. The modular roof structure provides passive shading while withstanding extreme weather conditions.

CLÉMENCE CARAYOL: What role do public spaces and community engagement play in the redevelopment, and how have local stakeholders been involved in the design process?

FRED HOLT: The new Sydney Fish Market integrates into what is quintessential Sydney, the blurring of internal and external space, and a foreshore experience.

CATHERINE SKINNER: Public engagement has been an important part of the entire process, with community workshops and stakeholder consultations, including the anchor tenant, The Sydney Fish Market, shaping key elements of the market. The redevelopment includes flexible public spaces, a harbourside promenade, and areas for cultural events, reinforcing the market's role as a community hub.

CLÉMENCE CARAYOL: How does the new structure balance functionality for commercial vendors with aesthetic and experiential improvements for the public?

FRED HOLT: In designing the new building, we were inspired by the traditional market archetype, which appears throughout history and across cultures – still a success today in its ability to amass diverse groups of people. Markets are social hubs for cities around the world and broadly follow the same architectural orthodoxies: a series of stalls that are open to the air but loosely grouped under a canopy and located within a large plaza. This concept is the foundation of the new building, both continuing and expanding on the existing archetype.

The existing fish market has conflicting functions. Like other fish markets across the world, tourists consider it a destination, even waking up early to visit the market auction during its peak trading hours. However, this often interrupts the daily operations of the industrial scale working market and collides with goods movement, resulting in restricted access to visitors.

Taking this aspect into consideration, the organisation of the program in the new building physically separates the operational movement from the public yet allows visual connections between the two.

specify.caroma.com
Caroma Specify Australia | Premium Bathroom Products & Solutions
CAROMA | Specify
Caroma Specify
Portal for architects, specifiers and construction professionals.
Products
Tapware & Mixers
Basins
Showers
Baths
Share Feedback

Redefining the digital experience for specifiers. New Caroma Specify website now live.

Specifier-Centric intuitive navigation.

New BIM library to access and download high quality 3D models.

New Project Specification Builder to organise and manage multiple projects in one place.

Advanced search and filtering to quickly find what you need.

Mobile optimised so you can access content anywhere, anytime.

Visit specify.caroma.com.au.

CAROMA
Made For Life

LEFT The market's skylight roof cassette that can fit with the angles of the timber roof beams below / Sara Vita

An example of this is the 'fishbowl' style travelator that links basement parking with the upper ground retail, yet passes through the operations floor with glazed facades, allowing visitors a peak of the behind-the-scenes operations. Additionally, the majority of the ground level façade on Bridge Road is glazed to allow passersby opportunities to watch the spectacle of an operating fish market.

CATHERINE SKINNER: Stacking the Sydney Fish Market Operations over a partially sub-aquatic basement has optimised the Market's operational footprint, creating an opportunity for a highly engaging public realm that lifts up and over the Wharves and Loading Dock. This enables the complimentary relationship of the public realm and Market operations that has previously in tension. The vast roof canopy form provides protection over a large, naturally lit and ventilated marketplace.

CLÉMENCE CARAYOL: What are the biggest architectural challenges faced during this renewal, and how have they been addressed?

FRED HOLT: The new Sydney Fish Market is a project like no other. It is a hugely complex project which, given its public, civic and operational function, needed also to be simple. Its prominence in the city and in Sydneysider's traditions meant that it needed to be a standout – but not at the cost of its functionality.
The project has had no shortage of challenges. The roof is both custom and modular, made to fit the unique conditions of this project and site, and demonstrates the immense problem-solving capacity of great design. The market floor must be smooth to navigate but accommodate the needs of many different user types. And there is the challenge of the site itself: there are few places more meaningful to build a civic building than on Sydney's harbour. We're honoured to have been entrusted with these challenges – and we believe the new Sydney Fish Market will stand up to the task.

CATHERINE SKINNER: The biggest architectural challenges have come from the utter uniqueness of the project. Satisfying the complex needs of a unique blend of stakeholder and building typologies, within an immense inner-city building seen from all directions, that is built into and over the Sydney Harbour has been a Herculean task for the entire project team. The 20,000 sqm floor plate has almost no repetition, and as it occupies almost 90% of the site area, requires the majority of materials to be staged off site and delivered to the project by barge.

Architectural Wall & Ceiling Panels

A leader in Australian manufacturing and design innovation, Laminex continues to provide the Australian material landscape with cutting-edge, design-forward solutions. Integral to the Australian design community, Laminex introduces one of its latest ranges: Architectural Wall and Ceiling Panels. Balancing productivity with aesthetic appeal, this innovative batten system offers faster installation, enhanced durability, and versatile design for both commercial and residential spaces.

The Architectural Wall and Ceiling Panels are designed to seamlessly integrate into any interior, transforming walls and ceilings into striking features. The range combines the timeless look of timber through the flexibility of battens, offering a variety of decors and three linear profiles to make a bold impact. The prefinished panels feature realistic woodgrain finishes from the Laminex Colour Collection, including Raw Birchply, Classic Oak, Sublime Teak, Danish Walnut, Planked Urban Oak, and Blackened Legno. Delivering the warmth and richness of timber while maintaining a contemporary, sophisticated aesthetic.

The three-panel profiles include V-Groove 100, Batten 40, and Batten 60, allowing for maximum design flexibility. With optional Black Shadowline and Natural Shadowline providing an additional layer of refinement, perfect for commercial and retail spaces seeking understated luxury.

What sets the Architectural Wall and Ceiling Panels apart from regular batten joinery is the innovative Invisilock system, which facilitates an invisible fixing method. This results in a smooth, continuous surface that not only enhances the visual appeal but also increases durability, making the panels resistant to damage. The panels are crafted from decorated MDF, offering excellent resistance to scratches, stains, and impacts—qualities that make them well-suited for high-traffic commercial environments like hotels, restaurants, and offices.

The Invisilock system also reduces installation time, making it up to three times faster for walling installation compared to traditional batten systems. This efficiency makes it an ideal solution for projects with tight timelines, without compromising on quality. The seamless installation process also helps minimise disruption in commercial spaces, ensuring a quick turnaround.

Laminex's Architectural Wall and Ceiling Panels provide a practical yet stylish solution for a wide range of environments. With their realistic timber finishes, versatile profiles, and innovative fixing system, they offer an outstanding combination of aesthetic appeal, design flexibility, and performance. Whether for commercial or residential applications, these panels are a durable and efficient option that enhances the interior of any space.

Laminex®

FIND OUT MORE
bit.ly/Laminex-ADV-ADQ2-2025

RIGHT Fosroc Australia's Emer-Proof system / Fosroc

Making a splash: The latest commercial waterproofing innovations

WORDS CLÉMENCE CARAYOL

Waterproofing plays a crucial role in commercial construction, ensuring structural integrity and longevity while protecting buildings from environmental elements. As technology advances, modern waterproofing solutions have emerged, focusing on durability, sustainability, and efficiency.

ABOVE Microsoft Data Centre project featuring Fatrafol 807V PVC membrane and Fatra Walk membrane walkways / Fatra

From innovative liquid membranes to cutting-edge polymer-based sealants, the latest solutions address common industry challenges.

Australia's unique climate conditions, including high UV exposure, coastal environments, and heavy rainfall in some regions, make selecting the right waterproofing technology essential for long-term performance.

Waterproofing in commercial construction must consider a range of environmental and structural factors, from foundation waterproofing in high water table areas to the need for UV-resistant materials for rooftop applications.

In Australia, the selection of a waterproofing system is heavily influenced by building codes and regulations, ensuring that materials meet strict standards for safety, sustainability, and performance.

Key requirements include compliance with the National Construction Code (NCC), as well as Australian Standards such as AS 4654 for waterproofing membranes and AS 3740 for wet areas. The growing importance of environmental responsibility is also pushing the industry toward low volatile organic compounds (VOC) and solvent-free solutions.

COMMON WATERPROOFING METHODS AND THEIR APPLICATIONS

Waterproofing techniques vary based on construction type, environmental conditions, and longevity expectations.

Liquid-applied waterproofing membranes are a widely used solution in Australia, particularly for rooftops, balconies, and podiums, due to their seamless application and ability to accommodate movement within the structure.

These membranes, often based on polyurethane, acrylic, or silicone technology, offer flexibility, strong adhesion to various substrates, and resistance to water ingress.

A key advantage is their ability to be applied in situ, forming a monolithic barrier without joints, which reduces potential weak points in the system.

Sheet membrane waterproofing is another widely used approach, particularly for below-grade structures such as basements, retaining walls, and tunnels.

These pre-manufactured membranes, commonly made from polyvinyl chloride (PVC), high-density polyethylene (HDPE), or bitumen-modified materials, provide a consistent thickness and controlled application process.

They are favoured for their long lifespan, resistance to groundwater pressures, and ability to withstand exposure to harsh chemicals.

Many commercial structures in Australia, including underground parking garages and large infrastructure projects, rely on sheet membranes to ensure long-term durability.

Cementitious waterproofing is a commonly employed method in Australia's commercial construction sector, particularly for water treatment plants, swimming pools, and tunnel linings. This approach involves the application of cement-based coatings that incorporate waterproofing additives, creating a highly durable and water-resistant surface.

While cementitious waterproofing is often rigid and lacks the flexibility of liquid membranes, it provides strong adhesion to concrete substrates and is particularly effective in areas with continuous water exposure.

Polyurea-based waterproofing is becoming an increasingly popular choice due to its exceptional durability and rapid curing time.

This spray-applied, elastomeric system offers outstanding flexibility and resistance to extreme temperatures, making it well-suited for Australian conditions, where structures must withstand UV exposure, heavy rain, and fluctuating weather patterns.

Polyurea coatings are frequently used for roofs, podium decks, and industrial floors, where a tough and abrasion-resistant waterproofing layer is required.

Bituminous coatings and membranes continue to be widely utilised in the industry, particularly for below-grade structures, bridge decks, and planter boxes. These asphalt-based products provide strong resistance to water penetration and chemical exposure, making them a suitable option for areas that require robust, long-term waterproofing solutions.

In Australia, torch-on bitumen membranes are frequently specified for commercial roofing applications, where their ability to provide a multi-layered barrier against moisture and environmental conditions is highly valued.

Integral waterproofing systems, which involve the addition of waterproofing admixtures to concrete at the time of mixing, are gaining traction in the Australian market. These admixtures react with the concrete to create a self-sealing matrix, reducing permeability and enhancing long-term water resistance. This method is particularly beneficial for foundations, basements, and water-retaining structures, where the goal is to prevent moisture ingress at a structural level rather than relying on external membranes.

ADVANCES IN WATERPROOFING TECHNOLOGY

One of the most significant innovations in waterproofing is the development of bio-based, odourless liquid membranes, exemplified by Tremco Australia's AlphaGuard BIO. Ilona Osborne, Brand & Marketing Manager at Tremco Australia, highlights its suitability for sensitive environments.

"Low VOC and odourless, AlphaGuard BIO is the perfect choice for commercial roofs, especially in schools and hospitals where air quality is a concern," says Osborne.

Reinforced with polyester or fiberglass matting, it enhances durability and minimises labour-intensive installation. Its two-part catalyst-cured membrane also accelerates curing, allowing for rapid application in commercial projects.

The shift towards seamless, spray-applied polyurea membranes represents another breakthrough in the industry. Pearl Polyurethane's DuraPearl Polyurea is a standout in this category, offering rapid curing times and seamless, joint-free application.

"DuraPearl minimises downtime, becoming walkable in minutes while providing exceptional durability against extreme temperatures and environmental exposure," says Michael O'Rourke, Sales Manager at Pearl Polyurethane.

Its ability to adhere to various substrates, including concrete and metal, makes it an efficient choice for large-scale commercial applications.

For areas requiring long-term structural waterproofing, polyvinyl chloride (PVC) sheet membranes continue to be a preferred choice.

Fatra Australia's Fatrafol 807G exemplifies this technology, offering superior resistance to UV radiation, chemicals, and extreme weather conditions.

"Our membrane is widely used in high-profile projects such as the Sydney Fish Markets and data centres for tech giants like Microsoft and Amazon due to its long lifespan and exceptional performance in demanding environments," says Karl Chiverton, Director at Fatra Australia.

Heat-welded seams create a monolithic waterproof barrier, ensuring its adaptability to roofs, below-grade waterproofing, and green roofs.

Another crucial aspect of waterproofing is vapour control and surface protection. Fosroc Australia's Emer-Proof system provides an integrated approach through multiple layers of primers, polyurethane membranes, and durable topcoats.

Rohan Atkinson from Fosroc highlights the system's efficiency.

"Our solvent-free polyurethane membrane withstands permanently wet conditions while offering outstanding adhesion, making it ideal for commercial applications where long-term waterproofing is essential," Atkinson says.

This solution is particularly beneficial for commercial rooftops and external surfaces subject to high UV radiation and fluctuating weather conditions.

Waterproofing challenges also extend to concrete joints and façade seals, where Expon Industries' Antas MS30 Joint Sealant is leading the way.

"High-performance large windows and façade designs in commercial buildings require a sealant that adheres well to waterproofing membranes and powder-coated aluminium," says Henry Yin from Expon Industries.

This advanced STP-e polymer-based sealant is UV-resistant, paintable, and highly durable, ensuring long-term performance in high-rise constructions.

In addition to traditional membrane solutions, self-compacting concrete injection systems for basement waterproofing are redefining commercial construction.

The Dincel Waterproof Warranty System, an industry-first, eliminates water ingress at the critical wall-footing junction.

"Unlike conventional fully tanked systems, our integrated system prevents leaks at the earth face and offers up to a 50-year zero-leak warranty," says the Dincel team.

Another innovation gaining traction is polyurea-based waterproofing solutions such as Mapei Purtop 1000, a spray-applied, solvent-free membrane.

This product ensures immediate waterproofing, high tensile strength, and excellent crack-bridging ability. A case study from the Woolworths Distribution Centre in Auburn illustrates its effectiveness.

Geoff Dobble, NSW Remedial Division Manager at van der Meer Consulting, praises its attributes.

"Following a comprehensive peer review, we are confident that Purtop 1000 provides the optimal performance for this project. Its superior crack-bridging capabilities and durability make it the ideal solution to

LEFT AlphaGuard BIO / Tremco

withstand the anticipated harsh conditions," says Dobble.

As the commercial construction sector continues to evolve, integrated waterproofing systems that combine structural protection, efficiency, and environmental responsibility are becoming the new industry standard.

The demand for one-stop-shop waterproofing solutions has grown significantly, reducing reliance on multiple trades and mitigating risks through singular accountability for waterproofing performance.

Whether through bio-based liquid coatings, spray-applied polyurea membranes, or advanced joint sealants, these solutions are transforming commercial waterproofing by delivering durability, speed of installation, and compliance with evolving building regulations.

As regulations tighten and expectations increase, these advanced technologies are ensuring that commercial buildings remain resilient against water damage for decades to come.

REGULATORY CONSIDERATIONS AND FUTURE TRENDS

With evolving National Construction Code (NCC) regulations prioritising health and safety, integrated waterproofing systems are becoming the industry standard. Stricter requirements for sustainability and environmental impact are also driving demand for low-VOC and bio-based waterproofing materials.

Developers and construction firms in Australia are increasingly adopting innovative solutions that balance high performance with ecological responsibility.

Another emerging trend is the push for "one-stop-shop" waterproofing solutions, where a single system integrates multiple waterproofing elements, reducing reliance on multiple trades and ensuring accountability for long-term performance.

The rise of smart waterproofing technology, such as self-healing membranes and real-time moisture monitoring, is set to redefine industry standards in the coming years.

As the commercial construction sector continues to evolve, selecting the right waterproofing technology is critical to ensuring structural durability, compliance, and cost-effectiveness.

From bio-based liquid coatings to advanced joint sealants and spray-applied membranes, these innovations are transforming waterproofing across Australia. With continued advancements and tightening regulations, the industry is poised to see even more groundbreaking solutions that will ensure commercial buildings remain resilient against water damage for decades to come.

SUPPLIERS

Fosroc fosroc.com.au **Fatra Australia** fatraaustralia.com.au **Dincel** dincel.com.au **Mapei** mapei.com/au/en/home-page **Expon Industries** expon.com.au **Tremco** tremco.com.au **Sika** aus.sika.com **Pearl Polyurethane** pearlpolyurethane.com

HYBRID
antas
MS30
MS JOINT SEALANT

Sealant Compatibility: The Key to Effective and Reliable Waterproofing in Modern Architecture

UNDERSTANDING SUBSTRATE RELATIONSHIPS

Contemporary architecture employs an expanding array of substrates and construction methods to meet growing demands for performance, function, and construction ease. This diversity creates interesting technical challenges for waterproofing and sealing solutions. The mechanical properties of sealants, including their compatibility and adhesion with various substrates, directly impact their overall performance, particularly in waterproofing. Silicone sealants, for example, typically do not adhere well to porous substrates or waterproofing membranes. Using silicone around windows on brick or concrete can result in water leakage. However, for glass curtain walls, structural silicone is ideal for waterproofing and long-term durability.

A properly sealed building envelope requires choosing the right sealant chemistry for each substrate interaction. At Expon, we provide a range of sealants under the Antas® brand for sealing and waterproofing building envelopes and wet areas.

THE OVERLOOKED VARIABLE IN BUILDING PERFORMANCE

Even standardized components can present unexpected variables. For instance, aluminum window frames, despite appearing identical, can have different adhesion properties due to coating formulations, processing conditions, and pigmentation. Laboratory testing shows these variations, yet compatibility with sealing systems is often overlooked during material selection, compromising the overall building envelope.

TECHNICAL APPROACHES TO COMPATIBILITY

Addressing these challenges requires both material innovation and application expertise. The most successful sealing strategies include:

- Comprehensive compatibility testing between actual project substrates
- Site-specific application protocols that account for environmental conditions
- Understanding the chemical interactions between building components

For commercial structures especially, these considerations should be integrated early in the design process rather than addressed during construction.

AN EDUCATED APPROACH

For architects and specifiers, understanding material relationships is crucial to building performance. Considering sealant compatibility during material selection and applying proper application protocols can significantly enhance construction efficiency and building longevity. Proper sealing is not just about waterproofing; it's about creating intelligent interfaces that maintain structural integrity over the building's lifecycle.

A WELL-BALANCED SEALANT WITH THE WIDEST COMPATIBILITY

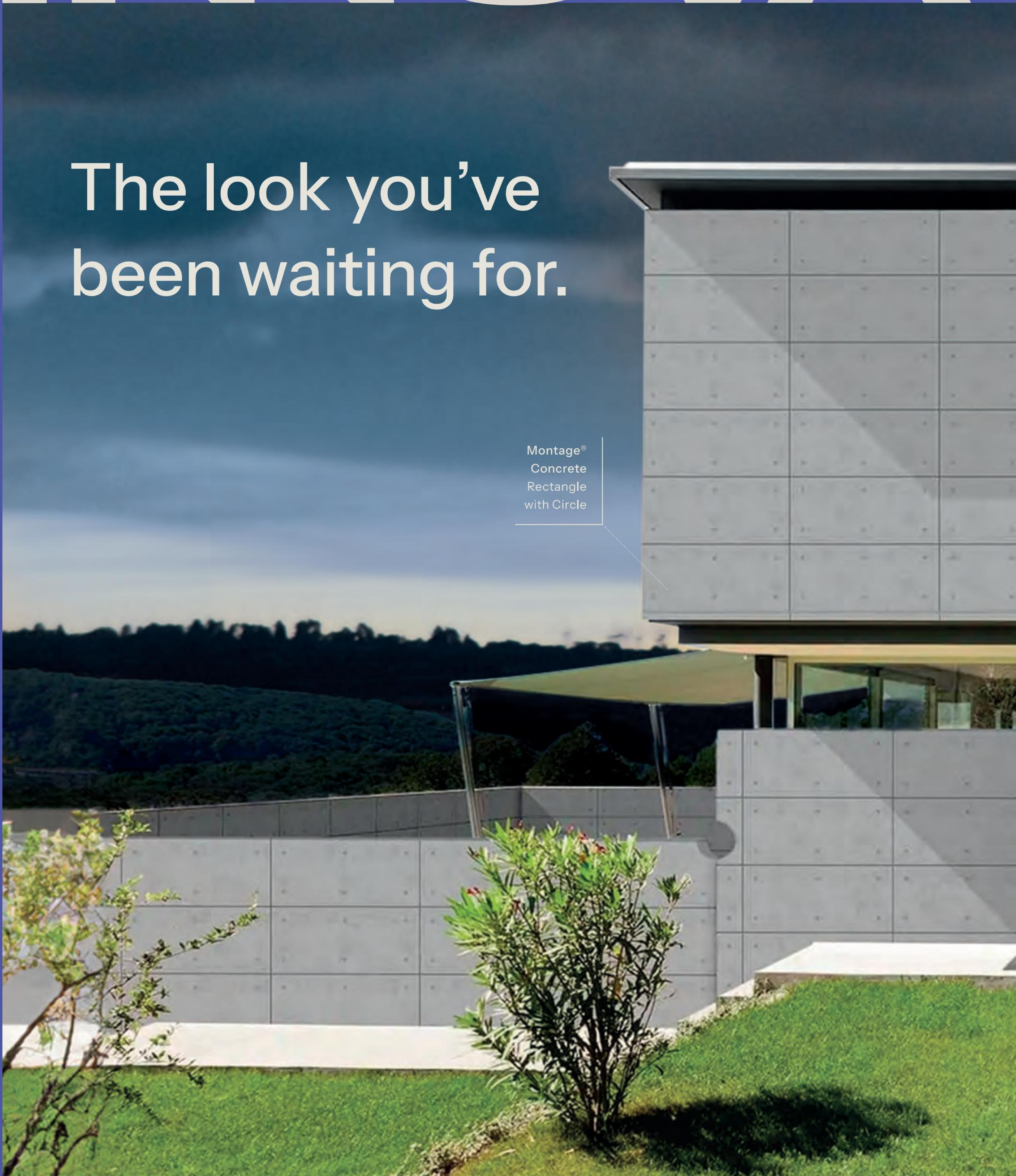
At Expon, we also address this issue by formulating our sealant. Over the years, we have tested many sealants from the market in combination with different substrates for adhesion and waterproofing. There is not a single sealant in the market can suit for all substrates or all applications as we found. However, we managed to formulate a well-balanced sealant with wide compatibility to different substrates – Antas® MS30 MS Joint Sealant. It is particularly helpful or often the best solution that works for applications requires high performance and involves many different substrate materials. Antas® MS30 has been successfully used in our market for years including in many projects by tier one builders.

---

expon
Sealants by Spec

FIND OUT MORE
expon.com.au

INNOVA



The look you've been waiting for.

Montage®
Concrete
Rectangle
with Circle

You have a vision. Innova is ready to make it a reality with our inspired range of fibre cement, for inside and out. Backed by global innovators Etex, every look is designed to turn heads.

So whatever your project, we'll help it run as smoothly as our fibre cement. For quality, value, and support, choose Innova. The change you've been waiting for. Find out more at **innovafibrecement.com.au**

etex
inspiring ways
of living

VINCIT QUI SE VINCIT

Decorative and architectural ceiling solutions

WORDS MATTHEW MCDONALD

In commercial settings, ceilings have become a vital design element that contributes to both aesthetics and functionality.

LEFT Firbank Grammar / Autex Photographer: Gallant Lee

The specification of commercial ceilings involves a range of considerations, including seismic design, acoustic performance, the potential for lighting integration, compliance with fire safety regulations, environmental sustainability, installation and maintenance requirements, and more.

In addition to these functional requirements, and increasingly, ceiling systems have come to be judged in terms of their design potential. The aesthetic aspirations of architects and their clients, combined with an expansion of what is possible from the manufacturing perspective, has seen a rise in the variety and quality of decorative and architectural ceiling solutions on the market.

So, what are these products and what sorts of questions should specifiers ask before choosing them?

BIOPHILIC DESIGN, LIGHTING INTEGRATION AND MORE

"When specifying a commercial ceiling system, design vision and acoustic goals are paramount," says Ben Grace, CEO at Acoufelt.

"Additionally, it's essential to address structural integrity, ensuring the ceiling can support new installations without compromising safety."

"Factors like load-bearing capacity and moisture resistance are crucial, especially in environments like aquatic centres and gymnasiums where conditions can challenge the durability of ceiling materials."

In terms of emerging trends, Grace says he is seeing an increase in biophilic design, enhanced acoustics, and integrated lighting.

"Acoustic enhancements are also pivotal, with specialised frames and ceiling systems improving sound quality while adding visual interest," he notes.

Acoufelt is responding to this trend with innovations like the 'Framework & Waffle-Style Ceiling Frames' and the 'Softenup Ceiling System', which blends aesthetic appeal with functional sound absorption thanks to the company's 'Woodbequiet' technology.

"Lighting integration is another key trend," says Grace. "Seamlessly incorporating fixtures into ceiling designs to enhance both functionality and aesthetics."

According to Grace, the Trivest Equity Headquarters is a good example of this.

"Here, the Softenup Ceiling System was implemented to achieve a sophisticated, acoustically optimised workspace. This installation not only provided exceptional sound control but also elevated the aesthetic quality of the office, resulting in a workspace that reduces noise distractions and fosters productivity."

FIBRE CEMENT PANELS

When it comes to commercial ceilings, specifiers are sometimes forced to choose between aesthetics, compliance, and performance. For Decor Systems, a supplier of acoustic decorative wall and ceiling panels and panelling systems, this doesn't have to be the case.

According to the company, its latest innovations in fibre cement panels and its 'Decorzen Micro' product meet the highest standards of fire safety, durability, and acoustic performance, while also ensuring design flexibility.

Decorzen Micro solves the performance versus aesthetic issue by incorporating thousands of ultra-fine perforations, which make it look like a solid panel, while delivering excellent acoustic absorption.

ABOVE Himmel Grosvenor / Supplied

FRICKER
CEILING SYSTEMS

Aluminium ceiling grid solution where strength meets style

Installation Guide
FRICKER ALUMINIUM GRID SYSTEM

Seismic Design Guide
FRICKER ALUMINIUM GRID SYSTEM

New guides now available

Transform your space with Fricker Aluminium Ceiling Grid, a premium and customisable system designed for a variety of commercial applications. Perfect for elevating any environment with aesthetic appeal and durability. Seismic accessories are also available to facilitate seismic-compliant design, ensuring both style and structural integrity. Proudly Australian made.

Scan to see the
Fricker range

HIMMEL™
INTERIOR SYSTEMS
CSR

ABOVE Macquarie Shopping Centre / SUPAWOOD

The aesthetic aspirations of architects and their clients, combined with an expansion of what is possible from the manufacturing perspective, has seen a rise in the variety and quality of decorative and architectural ceiling solutions on the market.

It achieves an elegant, uninterrupted timber veneer aesthetic while still reducing reverberation.

In addition, unlike standard perforated panels, the micro-perforations are small enough to prevent damage from fingers, dust, and debris – making it suitable for high-traffic spaces.

Because Decorzen Micro has low maintenance requirements and is easy to clean, it is particularly suitable for applications in education, healthcare, and corporate environments where longevity is key.

A non-combustible, highly durable, and moisture-resistant solution that can be used both indoors and outdoors, fibre cement is fast becoming a go-to material for commercial ceiling applications.

Thanks to the UV-printed timber look offered by Decor Systems, it delivers all the warmth of timber without compromising on fire safety.

The company's efforts to incorporate Indigenous designs – as, for example, in its "Contours of Country" fibre cement range – is particularly noteworthy. Bringing First Nations storytelling into the built environment, these panels allow for culturally significant and visually striking ceilings that stand the test of time.

LARGE-FORMAT PRINTING

Raw Inkk – a large-format printing company specialising in creating custom ceilings, panels and more for architectural projects – also favours the use of fibre cement in this context.

The company's large format digital printing services deliver the benefits of fibre cement, while providing scope for aesthetic ambition. Raw Inkk also offers a clear polyurethane coating to offer extra protection.

Because fibre cement offers a perforated option for improved acoustics, it is designed for large spaces that require sound control without compromising aesthetics. Installation is simple, with panels secured by screwing through the face.

To maintain a seamless appearance, the company offers printed screwcaps that match woodgrain or patterned finishes. This product is ideal for commercial spaces, public buildings, and outdoor structures that need a stylish, durable ceiling solution.

According to Raw Inkk, Balsa Beams are another option worth considering. Realistic and almost indistinguishable from real timber, they carry a Group 3 Fire Rating and therefore ensure safety compliance.

Lightweight and cost effective, they are ideal for a broad range of commercial applications. In addition, unlike solid timber which can be costly and cumbersome, Raw Inkk's balsa beams are non-load bearing.

Representing providing an affordable and sustainable solution, they are recommended for a range of commercial applications, including hospitality and retail.

According to Raw Inkk, MDF ceiling panels are another great ceiling option. Offering versatility, customisable shapes, and enhanced acoustic performance, these panels can be perforated to improve sound absorption. As such, they are also suitable for a variety of applications, including for theatres, conference rooms, and educational facilities. Available in a range of sizes and thicknesses to suit specific project requirements, they are designed with both aesthetic considerations and functionality in mind. Combining modern design, acoustic efficiency and fire resistance, they are well-suited for corporate offices, healthcare settings, entertainment venues, and retail spaces.

METAL CEILING SYSTEMS

On a different tack SAS International, a manufacturer of bespoke metal ceiling systems, offers options like SAS Mesh and the SAS130 metal ceiling system.

The attraction of the former, which can be used as an alternative option to exposed soffits, stems from its capacity to achieve contemporary aesthetics.

Suitable for applications across the commercial, transportation, retail, leisure and educational sectors, SA Mesh is available in a wide range of pattern and finish options.

Indeed, the appearance of the mesh changes when viewed from different angles (defined as 'open view' and 'closed view'). Essentially, the 'open view' allows light to pass through the gaps while the 'closed view' reflects light on the surface depending on the viewer's perspective.

Meanwhile, as specified at Bresic Whitney Offices (at Mosman on Sydney's lower north shore), at Iris Capital (also in Sydney) and elsewhere, SAS130 is a lay-in tile system which offers the facility to design the metal pan suspended ceiling to suit any building module.

The lay-in tiles are suspended from an exposed modular top hat or tee bar grid.

LEFT Monash College / Autex
Photographer: Dianna Snape

Delivering on functionality and performance, the metal pan ceiling tiles are available in a range of shapes and sizes and can be specified with perforations up to 65 % open area.

A MODULAR APPROACH

Sculptform, a designer and manufacturer of timber and aluminium modular wall, ceiling and façade systems, notes that commercial ceilings are becoming more sculptural and three-dimensional, with architects using materials like aluminium and timber to create dynamic, flowing forms.

The company says current trends include open-cell and pixelated ceiling designs, exposed ceilings with integrated feature elements, the integration of LED lighting within ceilings, and the incorporation of curved and organic forms.

One of its latest offerings, the Click-on Batten ceiling system offers a high-end, modular approach to commercial ceilings. Easy to install and featuring the company's patented clip system, it is available in timber and a variety of aluminium finishes.

Thanks to Sculptform's timber and aluminium batten bending processes, the system offers the capacity for custom curvature and shaping; while the option of integrated lighting provides further opportunity for architectural impact.

Moving to functional features, the Click-on Batten ceiling system's custom spacing and integrated backing options enhance acoustic control, while in terms of fire safety, options are available to ensure the system meets Group 1 compliance.

In terms of applications, the company recommends the system for transport hubs, airports, civic spaces, retail spaces, office buildings, and more.

BROADENING APPEAL

Supawood, a supplier of pre-finished, decorative, and/or acoustic architectural lining panels, has taken it upon itself to make feature ceilings more readily available to a wider audience.

The company has developed a ceiling product configurator that helps designers create their own designs directly through its system and, in real-time, to address concerns like finishes, acoustic rating, compliance and pricing.

Once complete, the finished design can then be sent directly from the customer's computer to the factory without the need for additional support or cost.

GYPROCK®
THE RED BOOK™
01
DESIGN GUIDE
FIRE, ACOUSTICS AND THERMAL
CSR

THE RED BOOK™

NEW PRODUCTS NEW SYSTEMS

The Red Book 1 Design Guide is dedicated to complete system solutions for walls, ceilings, and facades for all building classes. It provides fire, acoustic and thermal information on hundreds of wall and ceiling systems and includes products from the CSR companies Gyprock, Cemintel, Himmel, Bradford, Martini, AFS and Hebel, as well as our proud partner, Rondo.

Now available from
gyprock.com.au or by
scanning the QR code

GYPROCK® | CSR

ABOVE St Peters Lutheran School / Autex Photographer: Murray Rix

In terms of products, Supawood's latest include the 'Wave Blade' and 'Waffle Blade' ceiling systems.

According to the company, Wave Blade allow clients to create contoured wooden blade feature walls or ceilings, without the need to draw them. Featuring a simple fixing system – and recommended for office fitouts, restaurants, reception areas, and so on – it is designed to minimise installation time.

Waffle Blade, on the other hand, is intended to combine acoustic performance with customised three-dimensional cube designs, and in so doing, to add warmth and richness to the interiors in which it is installed.

A cost-effective ceiling lining system, it facilitates the design of the geometric effects in a variety of woodgrain finishes including natural timber veneer tactile woodgrains, veneer and coloured laminates.

SEISMIC CEILING SOLUTION

According to Himmel Interior Systems, the trend towards customisation, seamless integration, and design flexibility has led to a rise in various material finishes, colours, and textures.

The company supplies branded ceiling solutions – including Troldtekts wood wool wall and ceiling panels, Ecophon glass wool ceiling tiles, and the Martini polyester soffit and decorative panel ranges – which are intended to allow architects and designers to create visually striking yet functional spaces.

One of the company's most recent releases is the Fricker seismic ceiling solution, which is compatible with its full range of ceiling products.

Featuring customisable modules, and also characterised by its strong acoustic performance, it can be installed in an array of sizes and is compliant with the most recent seismic standard.

GRID CEILING TILES

According to acoustic specialist Autex, acoustic solutions have traditionally been relegated to walls and specified purely for their functional capacities.

However, designers and architects are now recognising the untapped potential of ceiling spaces to serve a dual purpose. They have begun to realise that they can deliver visual impact, as well as acoustic performance.

At the same time, of course, sustainability is now a key consideration.

"The industry is rapidly adopting circularity principles, ensuring that interior fit out elements like acoustic panels and ceiling systems are designed for disassembly, reuse, and recycling at the end of their lifecycle," says Rob Jones, Technical and Development Manager at Autex.

"This shift is pushing manufacturers to innovate beyond carbon reduction and into true material regeneration."

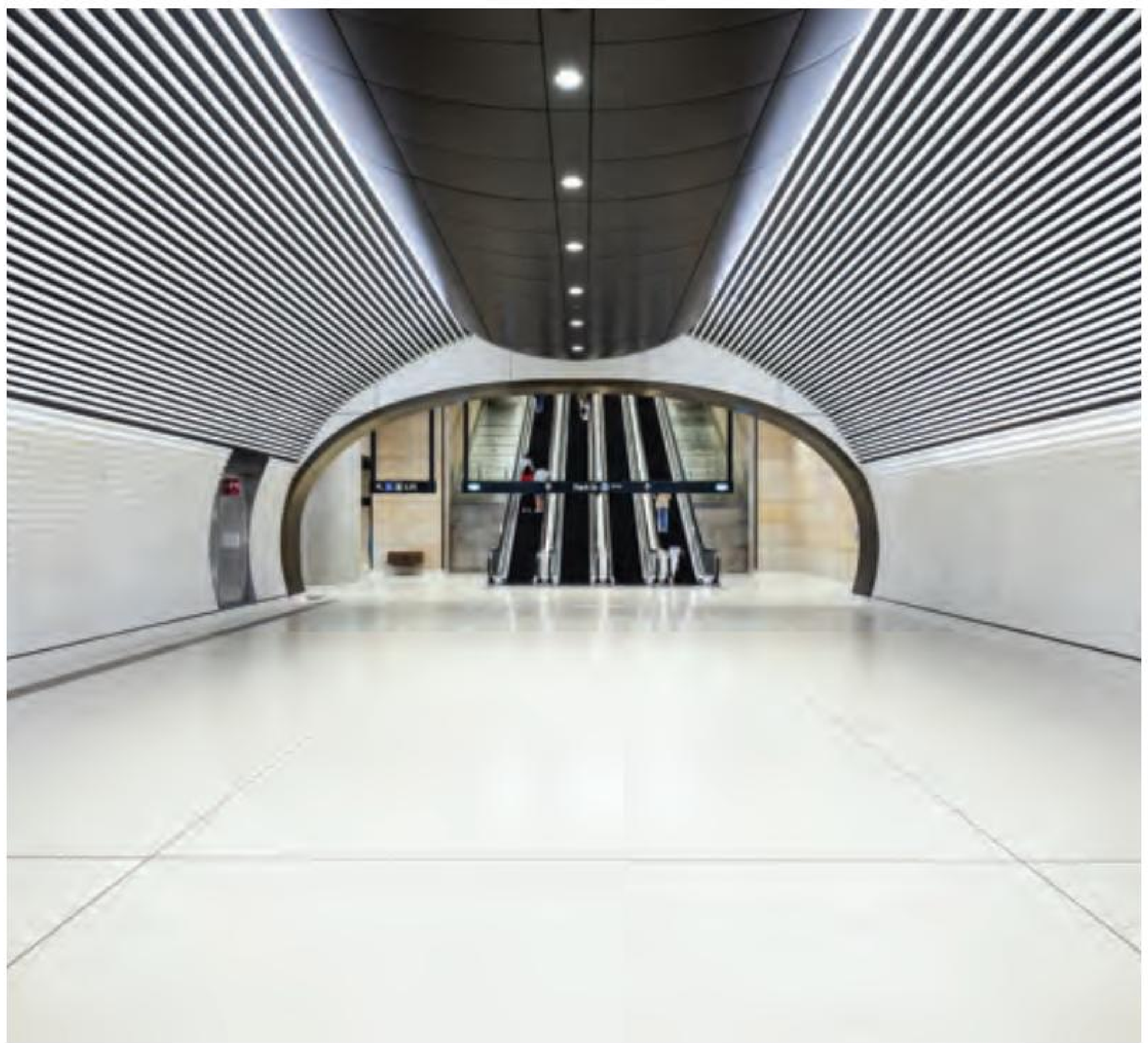
In line with all of this, the company's latest products include Grid Ceiling Tiles, which are acoustic products, designed to transform conventional grid systems. Highly adaptable, they can be configured to create many different aesthetics, be it a subtle addition, or an eye-catching feature.

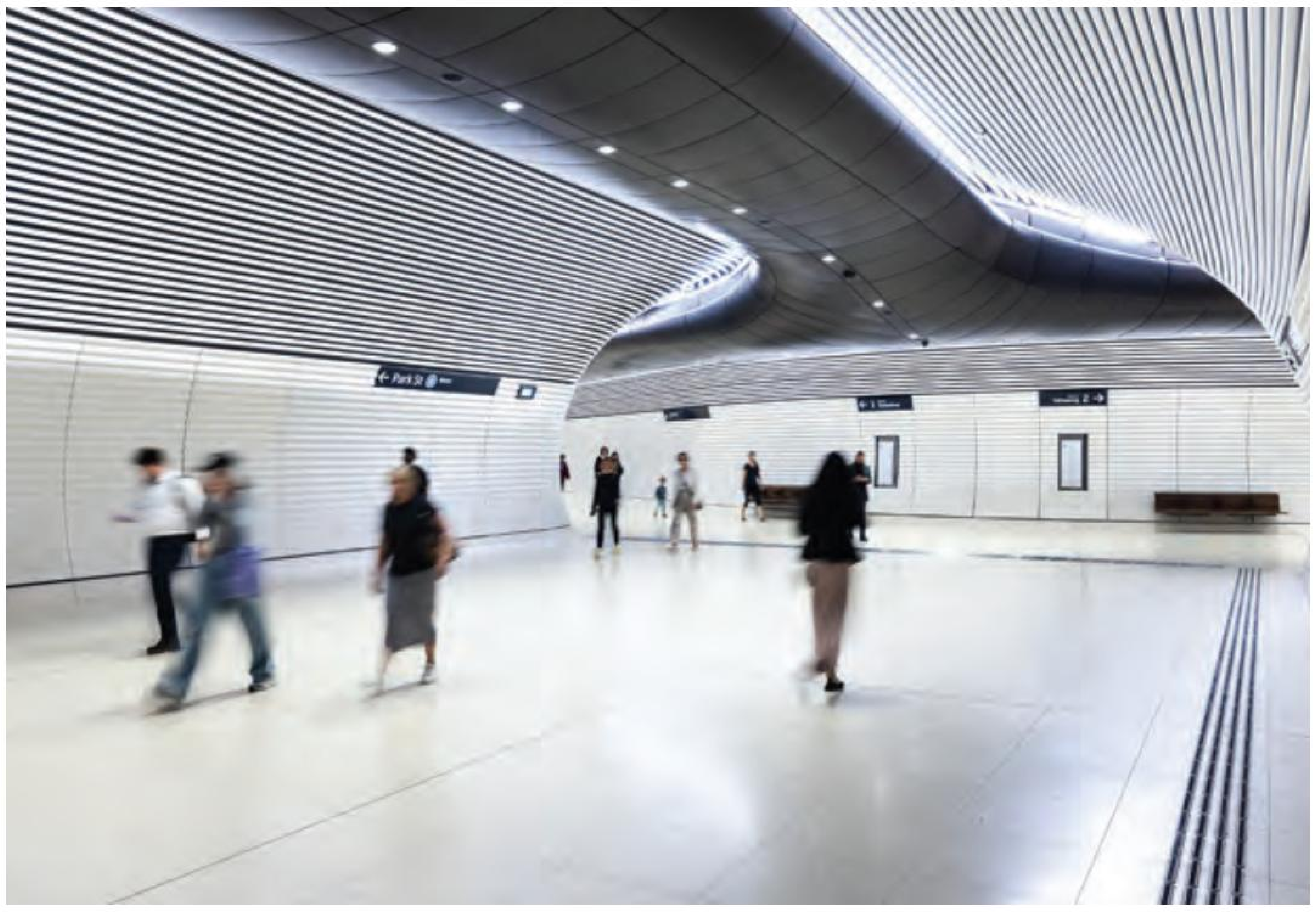
Also available from Autex is Horizon, a range of floating acoustic panels that create a cloud-like illusion when suspended. With clean lines and simple, two-dimensional geometric forms, Horizon holds space as both a design feature and a high-performance acoustic absorber.

Lastly, the company also offers Frontier, a long-time favourite among architects and designers, which is known for both its versatility and acoustic performance.

SUPPLIERS

Autex autexacoustics.com.au **Decor Systems** decorsystems.com.au **Sculptform** woodformarch.com **Supawood** supawood.com.au **Raw Inkk** rawinkk.com.au
Acoufelt acoufelt.com **Himmel** himmel.com.au **SAS International** sasint.com.au





Rethinking metal ceilings with tailored design solutions

Custom metal ceilings offer far more than aesthetic appeal—they can play a key role in achieving functional, compliant and efficient building designs. Despite common misconceptions around cost and complexity, tailored solutions are often just as practical as standard systems.

The Case for Customisation: Getting the Most Out of Metal Ceilings explores how bespoke ceiling designs can enhance aesthetics and acoustic performance, integrate essential services and reduce long-term maintenance. It also highlights how early collaboration with suppliers can minimise delays and streamline approvals.

Custom metal ceilings are often perceived as prohibitively expensive, overly complex and time-consuming to specify and install. These assumptions frequently lead to a default preference for standardised solutions, which can restrict creative flexibility and prevent projects from achieving their full potential.

In reality, custom metal ceilings can be delivered efficiently and economically thanks to modern manufacturing techniques, local fabrication capabilities and experienced supplier networks. Cost concerns are often misplaced, as tailored systems can reduce material waste, simplify installation sequencing and minimise long-term maintenance requirements.

UNPARALLELED DESIGN FLEXIBILITY

With the ability to tailor every element, from shape and perforation patterns to surface finish and integrated services, custom metal ceiling systems support both creative expression and technical function. Design options include geometric or open-cell layouts, sculptural forms, expanded mesh and bespoke modules that suit complex geometries.

A wide array of finishes—powder-coated colours, brushed or mirror effect and timber-look textures—enables seamless integration with any design language. Acoustic baffles, integrated lighting and raft ceilings further enhance both form and function, delivering spaces that are visually striking, acoustically comfortable and uniquely aligned with architectural intent.

Custom metal ceilings can also deliver high acoustic performance. Through tailored perforations and advanced backing materials, they match or exceed traditional acoustic tiles. Perforated panels allow sound to pass through and be absorbed behind, with patterns and open areas optimised to maintain both visual impact and effective noise control.

DELIVERING LONG-TERM VALUE THROUGH COLLABORATION

Custom metal ceilings deliver long-term value through exceptional durability, low maintenance requirements and resistance to moisture, corrosion and impact. Their longevity reduces the need for replacement, while integrated lighting, HVAC and reflective finishes support energy efficiency. Many systems also incorporate recycled materials and are fully recyclable at the end of their service life.

Successful custom ceiling design depends on early collaboration between architects, engineers and manufacturers. Engaging technical experts from the outset ensures aesthetic goals are achievable, functional requirements are met and project delivery is streamlined. This partnership also simplifies specification, accelerates decision-making with detailed drawings and samples and ensures that compliance, performance and design intent are integrated from the beginning.

Network Architectural is committed to supporting architects throughout every phase of the design and construction process. Their durlum Project Design Lifecycle provides a structured, expert-led approach to metal ceiling systems that guides projects from initial concept through to final installation. This framework ensures that each stage—whether design development, compliance or implementation—is managed with precision and a deep understanding of architectural intent.

Network Architectural

FIND OUT MORE
bit.ly/Network-Architectural-Adv-ADQ2-2025

Sustainability
Awards

ENTRIES
NOW OPEN

Be part of Australia's most respected awards program celebrating leadership and innovation in sustainable design and construction.

From standout homes and visionary commercial spaces to regenerative landscapes and product innovation—this is your platform to inspire, influence, and be recognised.

With a year-round national campaign, media exposure, and our prestigious Gala event, the 2025 Sustainability Awards aims to spotlight the trailblazers transforming our built environment.

This is your time. For entry criteria or to enter, scan the QR code below or head to our website.

Proudly presented by

ARCHITECTURE & DESIGN

ENTER NOW

sustainablebuildingawards.com.au

THE COMMONS

Photography by John Gollings, Tom Blachford

Major Partners

Autex Acoustics

gh COMMERCIAL

Our 2025 Partners

alspec EVERYTHING ALUMINIUM & HARDWARE

AWS ARCHITECTURAL WINDOW SYSTEMS

Billi

BONDOR metecno

COSENTINO

DECO EFFORTLESS, BEAUTIFUL LIVING

JamesHardie

KNAUF

Nero

Network Architectural

SAS International

Stormtech

SUPAWOOD ARCHITECTURAL LINING SYSTEMS

Wood Solutions

Strategic Partners

ACOR AUSTRALIAN COUNCIL OF RECYCLING

ACA Association of Consulting Architects The Business of Architecture

GLOBAL GREEN TAG

asbec AUSTRALIAN SUSTAINABLE BUILT ENVIRONMENT COUNCIL

GECA

Axolotl

Breaking the sound barrier: Choosing windows for acoustic comfort

Our expectation for comfort and efficiency in our built environment is evolving. Urban in-fill development, busier transportation routes and changes in the ways we use our homes are increasing our focus on achieving "acoustic comfort". In recent years, the problem of unwanted or excessive noise has become a pressing issue throughout Australia.

Correct specification and installation of windows for a project is an effective way to ensure a building envelope achieves desired outcomes for reduction of unwanted sound. Sounds such as traffic or airport noise are major contributors to sound nuisance and can cause a range of physical and psychological concerns for residents. The ability for a window or door to provide good sound reduction is dependent upon a number of factors, including glass selection, and window style.

SINGLE GLAZING

As a general rule, where single glazing is used, the acoustic performance of the glass improves as the thickness increases.

LAMINATED GLASS

Laminated glass will typically deliver better sound reduction properties than float or toughened glass. Laminated glass is made up of two panes of glass pressed together with a polyvinyl butyral inter layer. This means that thinner and lighter glass can be used for equivalent acoustic performance of a thicker and heavier glass panel.

DOUBLE GLAZING

Whilst double glazed door and window systems perform well in terms of sound reduction, double glazing may not necessarily deliver better acoustic performance than single glazing – particularly when compared with specially laminated glass.

ASYMMETRIC GLAZING

This involves placing two panes of differing thickness into one sealed unit e.g. a 6mm outer pane and a 4mm inner pane. This leads to a perceptible difference in performance compared to normal double glazing with two panes of the same thickness.

WINDOW STYLE

The design, or format of a window or door will impact on its ability to deliver sound insulation. By design, some windows and door styles "seal" better than others. For example, an awning window or casement window is designed so that the operable sash physically compresses the window seals when it closes, and as such will provide a much better performance than a sliding window which brushes past the sealing component. In the same way that water can leak into a poorly sealed structure, sound can leak or seep through a poorly sealed or poorly installed window.

In essence, the quest for acoustic comfort is no longer a luxury, but a necessity in our increasingly bustling world - and the strategic selection of windows is an increasingly important aspect of any construction project. From the fundamental role of glass thickness in single glazing to the advanced sound-dampening capabilities of specialised laminated options, and the nuanced benefits of asymmetric double glazing, the choices are manifold. As the regulatory landscape evolves, embracing these acoustic principles will be paramount in crafting spaces that not only shield us from the cacophony of the outside world but also nurture a sense of tranquility within.

This article is an excerpt from a longer whitepaper. Download the full paper below.

AWS
ARCHITECTURAL WINDOW SYSTEMS

FIND OUT MORE
bit.ly/AWS-ADV-ADQ2-2025

Where form meets function: Commercial windows and framing

WORDS STEPHANIE STEFANOVIC

As commercial architecture grows more complex, the role of windows and framing has evolved far beyond basic functionality.

PREVIOUS According to EBSA, the MP2-FL-OP louvre system was custom-developed for Seafarers, Melbourne, a mixed-use project designed by Fender Katsalidis and developed by Riverlee. **ABOVE** Melbourne Central Rail / Greene Fire

Modern solutions must balance visual appeal, thermal performance, structural integrity, and occupant comfort, all while meeting strict compliance requirements.

Whether it's louvres optimising airflow, frames reducing energy loss, or fire-rated windows improving safety, making the right choices in windows and framing can have a huge impact on the final product of a commercial structure. In this article, we look at some of the leading products in this space, and how architects and specifiers are using them to design efficient yet aesthetically pleasing commercial spaces.

LOUVRE SYSTEMS

Known for their ability to provide natural ventilation, thermal and solar control without compromising on aesthetics, louvre systems have become an increasingly popular addition to commercial structures. More advanced systems, like opposed-opening louvres, are particularly known for their ability to allow ventilation without sacrificing views. This is especially desirable in high-end commercial or mixed-use structures where aesthetics and occupant experience are closely linked.

One good example is EBSA's MP2-FL-OP opposed-opening louvre system. Unlike conventional louvres, the MP2-FL-OP system features an opposed-opening blade action, meaning the top blade opens upwards while the bottom blade opens downwards. This unique motion significantly improves airflow and ventilation while maintaining unobstructed views.

According to EBSA, the MP2-FL-OP louvre system was custom-developed for Seafarers, Melbourne, a mixed-use project designed by Fender Katsalidis and developed by Riverlee. The project brief required a bespoke louvre solution that maximised natural ventilation and avoided water ingress without obstructing views from the nearby wintergardens.

After working closely with the architect and developer to understand their requirements, EBSA collaborated with builder Icon to deliver the system and seamlessly integrate it into the Seafarers project. Given the precision required for installation, the louvres were assembled off-site to allow structural sealants to fully cure in a controlled environment, ensuring long-term performance and durability when installed into the commercial curtain wall system.

Based on the project's requirements, EBSA engineered a solution that combines innovative blade movement with a high water rating. Tested to AS/NZS 2047, the system has 1000Pa water penetration resistance.

LEFT & BELOW Macarthur Clinical School / AWS
Photography: Marcus Clinton

Modern solutions must balance visual appeal, thermal performance, structural integrity, and occupant comfort, all while meeting strict compliance requirements.

Inspired by previous earthquake testing, the company also refined the drive system for simultaneous or separate operation of top and bottom blades. The two-year development journey resulted in the installation of 111 MP2-FL-OP louvres covering 201.67sqm, creating a functional yet eye-catching facade.

WINDOWS

Windows have a vital role to play in all buildings, but especially in commercial structures, where performance requirements tend to be higher. Not just a means of letting in light, windows are an essential component of occupant wellbeing, energy performance and architectural identity.

It may not be the first thing that comes to mind, but windows are also a crucial component in fire-proofing a building. According to Greene Fire, manufacturer of Aluflam fire-rated windows, there are several types of fire-resistant glazing, each with its own set of benefits and limitations.

Historically, wired glass was commonly used for fire protection, especially until the 1980s and 90s. While this could provide some fire resistance, it is generally considered the weakest form of fire-resistant glass because it is prone to cracking upon impact.

Ceramic glass is a more advanced option. It is crystallised glass that becomes strong and thermally stable, able to withstand temperatures up to 680 degrees Celsius. While effective in fire scenarios, ceramic glass offers limited insulation. In the event of a breakage, it also shatters into large pieces. For these reasons, ceramic glass is typically used in applications such as log or wood burners.

Tempered or safety glass is another common option. It is produced through a heat treatment process that creates tension and compression within the glass. While it is relatively strong and shatters into small, less dangerous pieces when it breaks, its fire resistance is generally lower than other materials, making it less suitable for high-risk fire environments.

What sets Greene Fire's Aluflam fire-rated windows apart is their use of a multi-layered intumescent design. This system includes two external layers of toughened safety glass, sandwiched around an intumescent interlayer. When exposed to fire, the glass is designed to break, but the interlayer immediately begins to form an opaque, insulating protective barrier that resists further penetration of heat and flame. The more layers present, the greater the protection and insulation the system provides, ensuring higher levels of fire resistance.

Architecturally, the Aluflam fire-rated windows offer several advantages. For example, they allow the creation of open, airy spaces that are flooded with natural light, contributing to a more pleasant and productive environment. They can also help reduce noise from the surrounding area, making them suitable for offices or commercial spaces situated in busy environments. And from a safety perspective, the transparency of these windows enhances visibility and sightlines, particularly into hallways and stairwells, which is crucial in emergency situations.

These fire-resistant windows are especially beneficial when used in fire doors, which play a vital role in compartmentalising fire and ensuring safe passage for building occupants. They provide a combination of fire protection and transparency, enhancing both safety and visibility.

FRAMING

When it comes to windows, glazing is often the focus, but it's worth remembering that framing is equally important. Using the right framing can have a significant impact on the performance, appearance, and longevity of windows in commercial structures. More specifically, framing has a role to play in thermal performance, structural support, air and water tightness, sound insulation and of course, aesthetics.

Different framing products will fit different purposes. For example, AWS Australia's Thermally Broken 150mm FrontGLAZE framing (Series 826), is an advanced aluminium framing system designed for commercial applications. The system incorporates ThermalHEART technology, which means it includes a polyamide insulating strip between the inner and outer frame elements. This thermal break effectively reduces the transfer of heat and cold, enhancing the building's energy efficiency. According to AWS, the use of this technology provides up to 33 percent more energy efficiency compared to standard double-glazed windows, resulting in significant energy cost savings.

Another factor that makes it particularly well-suited for commercial buildings is its ability to support large expanses of glass, delivering a sleek and modern appearance that enhances natural light penetration. The system's thermally broken design also ensures that interior environments remain comfortable, regardless of external weather conditions, which is important for commercial spaces aiming to deliver optimal working conditions.

This product was used in Western Sydney University's Macarthur Clinical School, a multi-storey building that provides a simulated hospital environment for students, as well as office space for researchers. The building has a striking facade that is essentially made up of two 'skins', with parametrically designed cladding that was fitted into AWS ThermalHEART commercial framing, supplied and installed by Evolution Windows.

"We did something quite unique with this window system," says Architect, Chris Aucott.

"We actually reversed it so that we had more depth in the mullion on the outside to help us create a bit more light and shadow on the facade."

ThermalHEART Series 826 framing was used to house both wall panelling and glazing throughout the building, while the interior walls consist of insulation and pin board that can be utilised by teachers in their classrooms.

"I'm really proud that we've created a building for the users so it's not only just a great piece of architecture delivered on time, within budget, but it's a space for people, and a space where people can grow and interact and learn," adds Aucott.

alspec®
EVERYTHING ALUMINIUM & HARDWARE

7-Star Energy Efficient Solutions

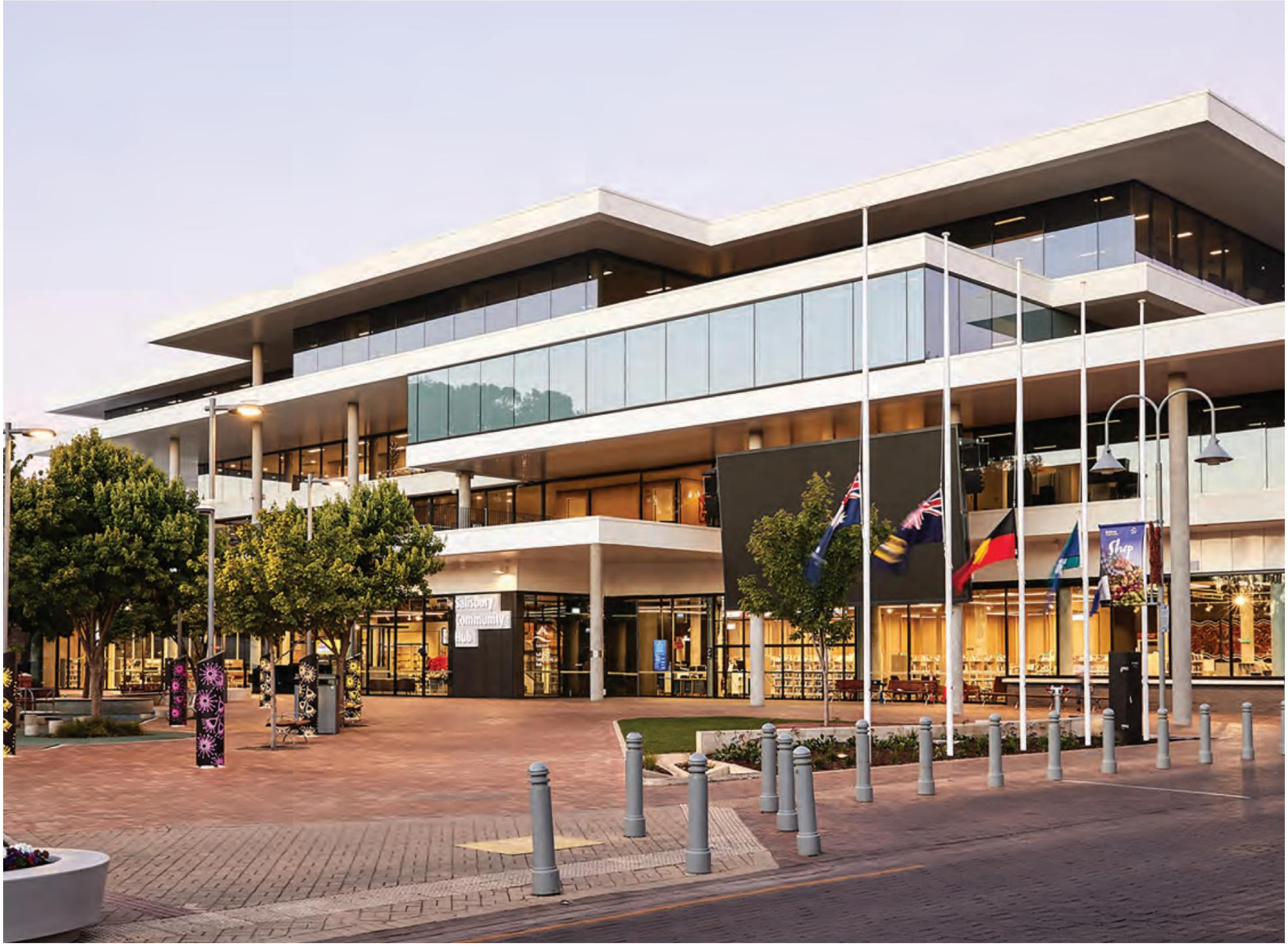
Specify Alspec for your next project

alspec.com.au

alushade

alspec® SOLAR

THERMAFRAME
THERMALLY BROKEN WINDOW AND DOOR SYSTEMS



ABOVE Salisbury Community Hub / Alspec

"We've created spaces where people can engage with each other, and hopefully it benefits their education."

Another framing solution is Alspec's ThermAFrame Thermally Broken Framing. According to the company, its windows and doors are capable of the highest thermal performance of any locally supplied aluminium windows and doors. Combined with an improved Insulated Glass Unit, this can result in super low U-Values, unheard of with traditional aluminium systems.

"Thermally broken windows and doors help control the indoor temperature in both warm and cold climates, and they can be especially beneficial in controlling the temperature balance in a building," says Ross Baynham, National Specification Manager at Alspec.

"In commercial spaces, there are often many people who feel the temperature differently and therefore, inconsistent facade temperatures can cause huge air-conditioning balance issues."

Alspec's ThermAFrame Thermally Broken Framing was used in Salisbury Community Hub, a multi-purpose facility built to serve the growing city of Salisbury, just north of Adelaide. Designed by Hassell Studio, the space includes the Salisbury Council administration offices, library and information facilities, education, training and meeting spaces, and exhibition and performance spaces.

Key to the building's design is the representation of its four levels in a series of staggered layers with floor-to-ceiling glazing enclosing the spaces. According to Alspec, its ThermAFrame 150mm Flush Glazed Thermally Broken Framing was chosen for a significant portion of the facade for its ability to maximise natural light while providing exceptional energy performance.

As it was expected that the building would have significant design loads, Alspec's team worked with the fabricator, Aluco, and the architect, Hassell Studio, to develop a custom-made structural mullion for the ThermAFrame. Designing and extruding the mullion specifically for this use case ensured that the framing would be able to accommodate the calculated building loads and glazing spans.

The result is a modern, open structure with expansive views of the surrounding greenery — an inviting space that draws people into the rejuvenated town centre for everything from community gatherings to business events.

CAPRAL
ALUMINIUM

Accepts 18mm IGUs to maximise comfort
Uw Values down to 2.0 for energy code compliance
Made with LocAl® lower-carbon aluminium as standard
Thermally broken aluminium delivers excellent insulation
LocAl® 13

urbancomfort™
THERMAL RESIDENTIAL

At Capral we are committed to designing windows and doors to meet the needs of the Australian market well into the future.

We are proud to introduce Urban Comfort™.
Thermally broken residential windows and doors.

Capral's Urban Comfort thermally broken windows and doors help to maintain indoor comfort, lower energy bills, and contribute to sustainable building design — making them an excellent choice for architects and homeowners alike.

capral.com.au/urbancomfort

A view to the future.

BELOW Salisbury Community Hub / Alspec

SUPPLIERS Alspec alspec.com.au **EBSA** ebsa.com.au **AWS** awsaustralia.com.au **Greene Fire** greenefire.com.au

Why uPVC windows are the smart choice for energy-efficient homes

Improving the energy efficiency of new construction and existing residential buildings in Australia has been gathering momentum in recent years. Jim Coulston, CEO of Vinyl Council of Australia explains how high-performance uPVC windows deliver cost-effective solutions for modern construction needs.

High-performance windows are essential for achieving 7-star home standards, enhancing energy efficiency, and maximizing occupant comfort. uPVC (unplasticized polyvinyl chloride) stands out as the superior choice due to its exceptional insulation properties, long-term durability, sustainability credentials, and overall cost-effectiveness.

UNPARALLELED ENERGY EFFICIENCY AND THERMAL PERFORMANCE

Nearly 40% of all building energy loss occurs through windows and doors, with up to 87% of building heat gained through windows.

Unlike aluminium, which readily conducts heat and requires thermal breaks, uPVC has naturally low thermal conductivity - 1,000 times less conductive than aluminium. This characteristic significantly reduces heat loss during winter months while effectively keeping interiors refreshingly cool in summer, resulting in lower energy consumption and reduced heating and cooling costs.

Several measures can improve a window's efficiency: double-glazed panes, reflective low-emissivity coatings, insulating gas between glass panes, and tightly sealed uPVC frames that reduce air filtration between sash and house frame.

Although timber possesses comparable insulation properties, it demands continual maintenance and lacks recyclability potential.

DURABILITY AND LOW MAINTENANCE

uPVC exhibits remarkable resistance to various environmental conditions and will not corrode, peel, or fade over time. The unique welded joints of uPVC frames maintain structural integrity for life, ensuring frames will not warp. Maintenance requires only occasional cleaning with soap and water. Timber frames are prone to warping, rot, and pest infestation, while aluminium can corrode, especially in coastal environments. uPVC retains its appearance and performance for decades, unlike alternatives requiring protective coatings or repainting.

SUSTAINABILITY AND CIRCULAR ECONOMY

uPVC windows represent an eco-friendly solution for modern homeowners. The material is entirely recyclable and can undergo multiple recycling processes without compromising quality, contributing to the circular economy. The uPVC Windows Alliance promotes responsible recycling practices, reducing waste and lowering carbon footprint.

Aluminium production is energy-intensive, requiring significant raw material extraction, while timber harvesting raises concerns about deforestation.

ENHANCED SECURITY AND NOISE REDUCTION

uPVC frames with galvanized steel reinforcing feature advanced multi-point locking systems, ensuring superior security against break-ins. Timber is more vulnerable to damage, while improperly installed aluminium frames can compromise safety. The multi-chambered design of uPVC offers added security while reducing noise transmission, creating peaceful indoor environments – essential for homes in urban areas.

ADHERENCE TO INDUSTRY STANDARDS AND ASSURANCE

The Profile Industry Code of Practice establishes performance benchmarks for quality, durability, and sustainability. Reputable manufacturers ensure compliance with rigorous standards for Australia's unique climate conditions.

THE CLEAR CHOICE FOR MODERN LIVING

For energy efficiency, durability, sustainability, security, and minimal maintenance, uPVC is the premier choice for high-performance windows. These exceptional windows enhance comfort, reduce energy costs, and support sustainability, making them the intelligent investment for 7-star homes and beyond.

---

uPVC Windows ALLIANCE
AN INITIATIVE OF VINYL COUNCIL OF AUSTRALIA

FIND OUT MORE
bit.ly/uPVC-Windows-ADV-ADQ2-2025

How to select commercial carpeting

WORDS MATTHEW MCDONALD

Commercial carpets and carpet tile solutions have come a long way in terms of design and functionality.

THIS PAGE Colour Theory, Cameo, GH Commercial

LEFT tretfordl Custom Rugs / Gibbon Group

Right now, the market for commercial carpeting is flush with options. The products on offer vary considerably in terms of safety, sustainability, aesthetics, and more. For this reason, selecting the right product for a particular application requires consideration of several factors.

KEY CONSIDERATIONS

According to Joel Williamson, National Sales Manager at GH Commercial, specifiers undertaking this task need to consider questions like – What is the purpose of the area that is being covered? How will it be used? How many people will use it? What is the client's appetite for cleaning, maintenance, and replacements?

"After setting these basic parameters, you can then start to look for products that might have the right look, feel, colour, pattern or texture to suit the space you are designing," says Williamson.

It's important to accept that sometimes compromise is necessary and to ensure that all stakeholders have accurate expectations, in terms of both the initial outcome and the ongoing use of the selections.

Williamson nominates cost, project lead times, and sustainability as important considerations during the initial planning stage.

"So many selections end up getting changed in the 11th hour of the build phase, because the products picked are over budget, take too long to be delivered or simply don't fit in with the sustainability ratings tool that is being used by the client," he says.

To avoid this pitfall, Williamson recommends working with well-established manufacturers or distributors. In this way, he says, specifiers can be sure that multiple options are on the table in terms of certifications held, cost, and so forth.

"Look for suppliers that have the ability to provide multiple product options and the flexibility to deliver good results, regardless of the twists and turns that happen from inception to completion," he says.

WHAT SPECIFIERS WANT

EC Carpets, an Australian manufacturing specialising in loop pile carpets, has conducted market research in this area. The company asked architects, interior designers, and property developers what factors influence them when specifying carpets for different types of projects.

The research identified durability, aesthetics, environmental sustainability, and cost as the key considerations.

According to EC Carpets, thanks to their value-engineered construction, durability, and performance, SND loop pile carpets continue to gain momentum in commercial applications.

The company says that because businesses are increasingly prioritising longevity and ease of maintenance, solution-dyed nylon (SDN) carpets – which are resistant to stains and fading, and able to maintain their appearance even in high-traffic environments – have become a product of choice.

To support eco-conscious design, EC Carpets has introduced the SDN Econyl range, which is made from one hundred % regenerated nylon. This initiative, which repurposes waste materials such as old carpeting and discarded fishing nets, results in a high-performance flooring solution that aligns with environmental goals.

The company's commitment to precision engineering ensures that every loop-pile carpet is durable and able to retain its appearance for years to come, even in high-traffic environments.

Beyond durability, these loop-pile carpets offer practical benefits such as improved acoustics, enhanced comfort underfoot, and stain resistance. As such, they are recommended as suitable for both residential and commercial applications.

CARPETING AS A DESIGN MEDIUM

Ainsley Gibbon, Managing Director of Gibbon Group says that, as architects continue to redefine commercial interiors with an emphasis on sustainability, well-being, and long-term performance, carpets remain an essential component in crafting spaces that are as responsible as they are inspiring.

"Far from being a mere surface treatment, carpets serve as a foundational design element – enhancing spatial identity, acoustic comfort, and material storytelling," says Gibbon.

According to Gibbon, with the dialogue surrounding workplace design continuing to evolve, several key trends are influencing carpet specification.

THE FIRST OF THESE IS BIOPHILIC DESIGN.

"The integration of natural elements into interiors remains at the forefront of architectural thinking," says Gibbon. "Carpet textures and patterns inspired by organic forms contribute to a calming, restorative atmosphere, reinforcing the link between design and well-being."

Luxury Ignited
Rinnai EL Electric Fireplace

Make a statement with the Rinnai EL Electric Fireplace. Combining cutting-edge design and advanced technology, it creates a captivating centrepiece that transforms any space into a luxurious retreat.

rinnai.com.au

- **Ultra-realistic customisable flames**
- **Versatile size options from 1000mm to 1800mm**
- **Dynamic glowing logs**
- **2kW & 3kW heating capacities***

Rinnai

*2kW heating capacity: EL1000, EL1300. 3kW heating capacity: EL1500, EL1800.

Similarly, health and well-being have become influential.

"Indoor air quality and non-toxicity have become non-negotiable considerations in commercial fit outs," says Gibbon. "Carpets that are low in Volatile Organic Compounds (VOCs) and are free from harmful chemicals, will contribute to a healthier built environment, positively impacting occupant comfort and productivity."

And thirdly, Gibbon sees a growing number of architects prioritising carpets with strong environmental credentials.

He says these specifiers are seeking products, which are "crafted from renewable, recycled, or biodegradable materials, manufactured with a reduced carbon footprint, and certified by third-party sustainability standards such as Global GreenTag International, GECA, ECS, or Cradle to Cradle."

The good news, on these terms, is that advancements in carpet manufacturing continue to push the boundaries of not just sustainability, but also performance and aesthetics.

Asked for examples, Gibbon points to Synsisal carpet and custom rugs, which are contract-grade flatwoven products crafted from 100 per cent Econyl regenerated nylon; Modulyss Carpet Tiles, a European brand that has embraced biophilic design principles, creating collections of texturally rich organic designs which are also manufactured using Econyl regenerated nylon; and Tretford carpets, which are crafted from natural goat hair.

MODULARITY

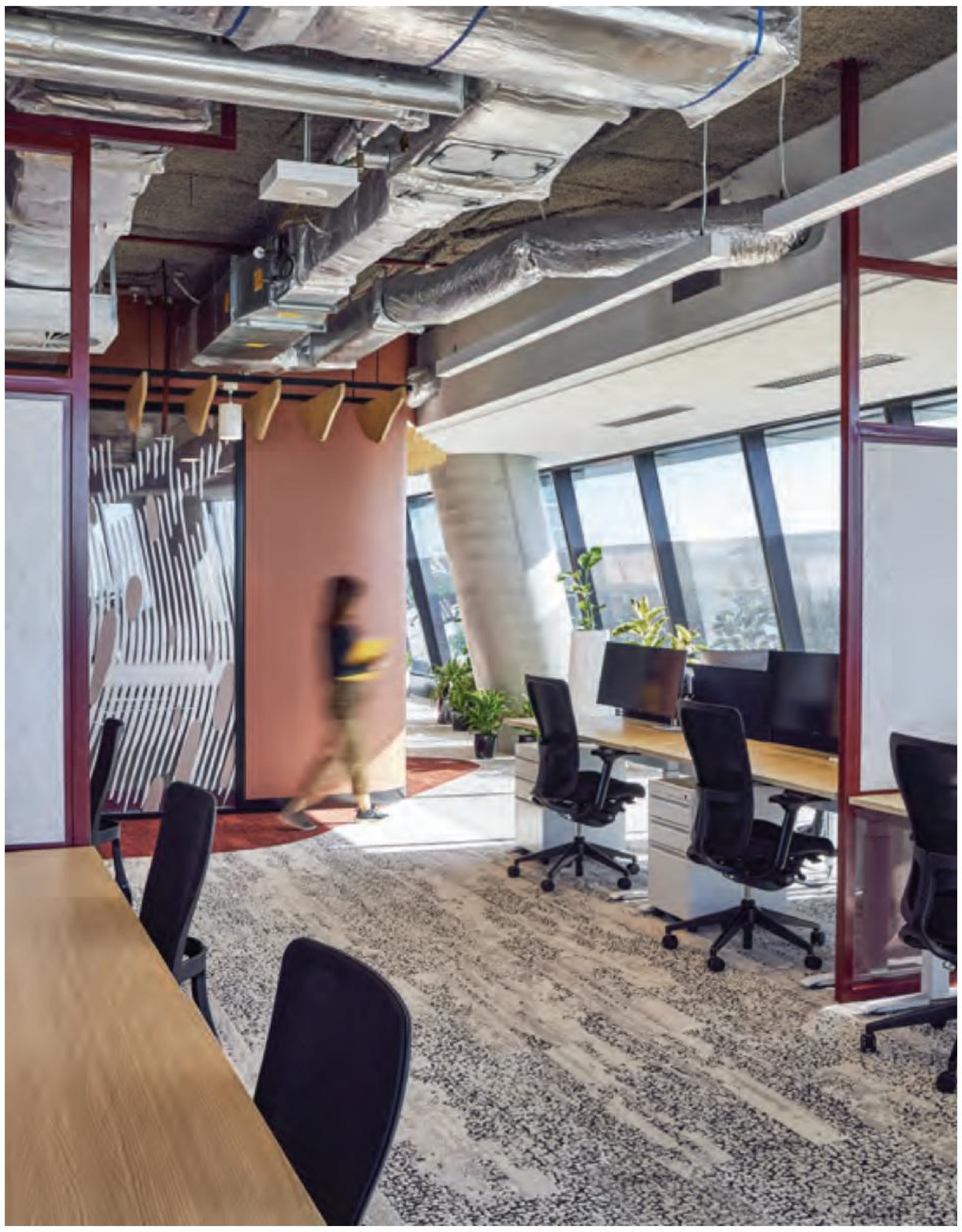
According to Kobe Gowland, National Business Development Manager – Corporate at Interface, the need for flexible workplaces has made modularity popular.

In addition, "from an aesthetic standpoint, we are seeing a shift towards warmer tones and textural elements to support a more residential look and feel in commercial spaces."

ABOVE SynSisal Custom Rugs / Gibbon Group

ABOVE & LEFT Colour Theory and Chromatic Cadence / GH Commercial

BELOW Below Interface commercial flooring / Supplied



This trend, she says, can be explained by the desire to encourage staff back to the office and provide a more engaging and "softer" welcoming environment.

"The focus in new carpet tile products includes heavy duty commercial modular tiles coupled with high design," says Gowland, noting the contrast between these types of products and the grey/charcoal plain tiles, typically found in corporate settings in previous times.

Interface's own range includes large format high-design, textured tapestry products, which are intended to ensure an updated modern look and feel, while still supporting the company's focus on sustainability.

Asked for examples, Gowland points to "Etched and Threaded" the company's latest global collection, which is a modern take on natural textures; and "Upon Common Ground", a collection co-created by Interface and Indigenous designers, which celebrates connection to country.

Noting the growing popularity of biophilic design, she also highlights "Interface i2", which she describes as "organic and randomly designed products which reduce waste, increase ease of replacement, and use nature to guide their design".

Established in China in early 2000, and with a presence in the Australian market for the last two years, Midas Floors offers a broad range of flooring products, including timber, laminate, and hybrid options.

On top of that, they are cushion-backed and therefore perform well in an acoustic sense. They reduce noise, while at the same time, increasing underfoot comfort. For these reasons, according to the company, they are commonly installed in open-plan offices and co-working spaces.

Because they are moisture-resistant, they can also be found in high-moisture environments such as basements, locker rooms, and healthcare facilities. Similarly, because they are designed for durability and to allow stains to be removed completely, they are ideal for airports, healthcare facilities, and retail settings.

As carpet tiles, they allow for quick replacement of damaged sections, reducing downtime and costs. Custom-printed (with a four – six month lead time), they facilitate the creation of unique interiors in hospitality venues, event spaces and so forth.

ASKING THE RIGHT QUESTIONS

As Joel Williamson, National Sales Manager GH Commercial notes – "Modern flooring products have moved from being simple functional elements to being able to contribute to the interior vision and how people interact with the built environment."

"This creates a complex challenge to deliver unique but well performing products to an incredibly diverse market."

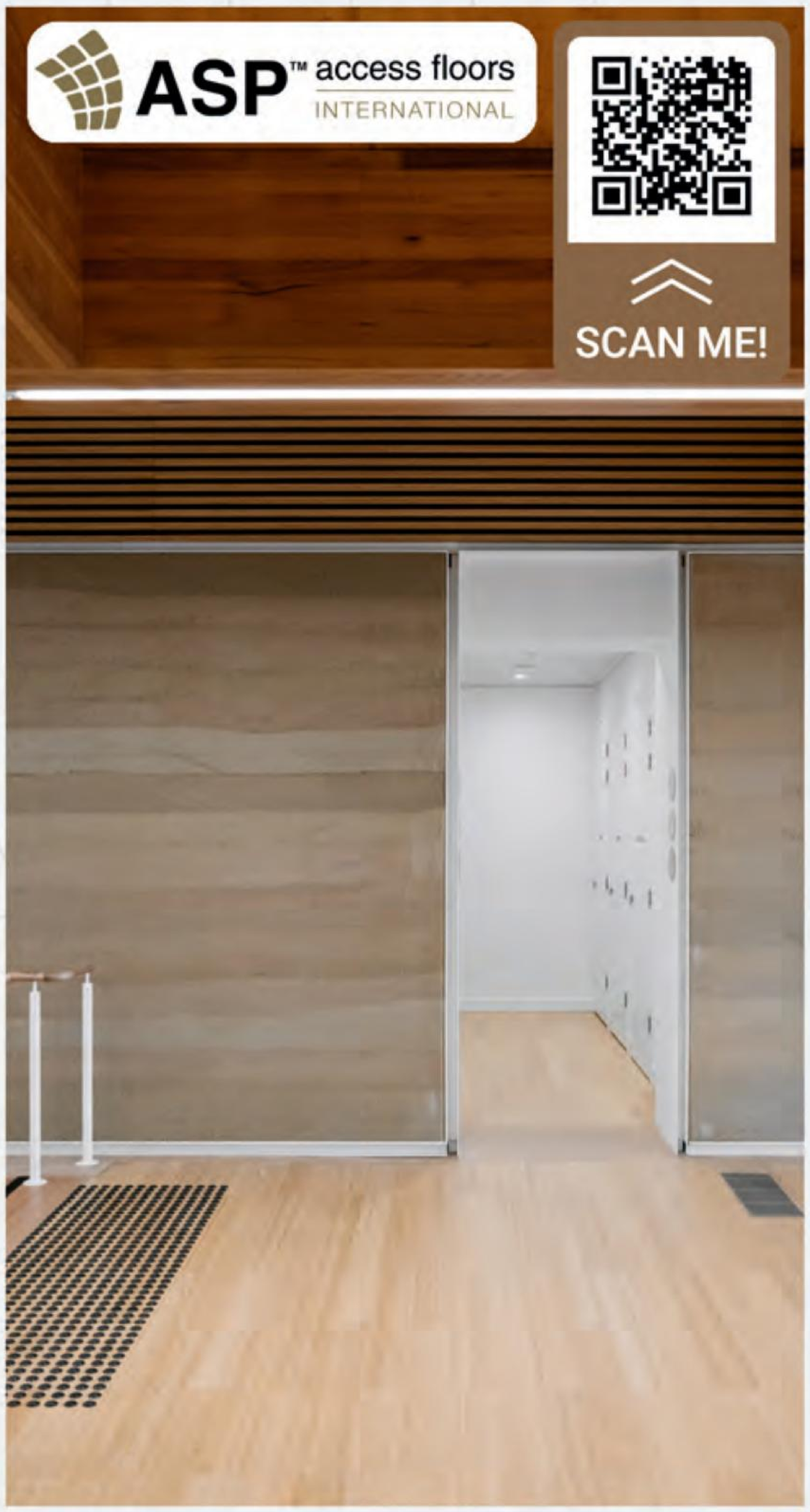
For specifiers, understanding the needs of this market and matching them to available products starts with communication and with asking the right questions.

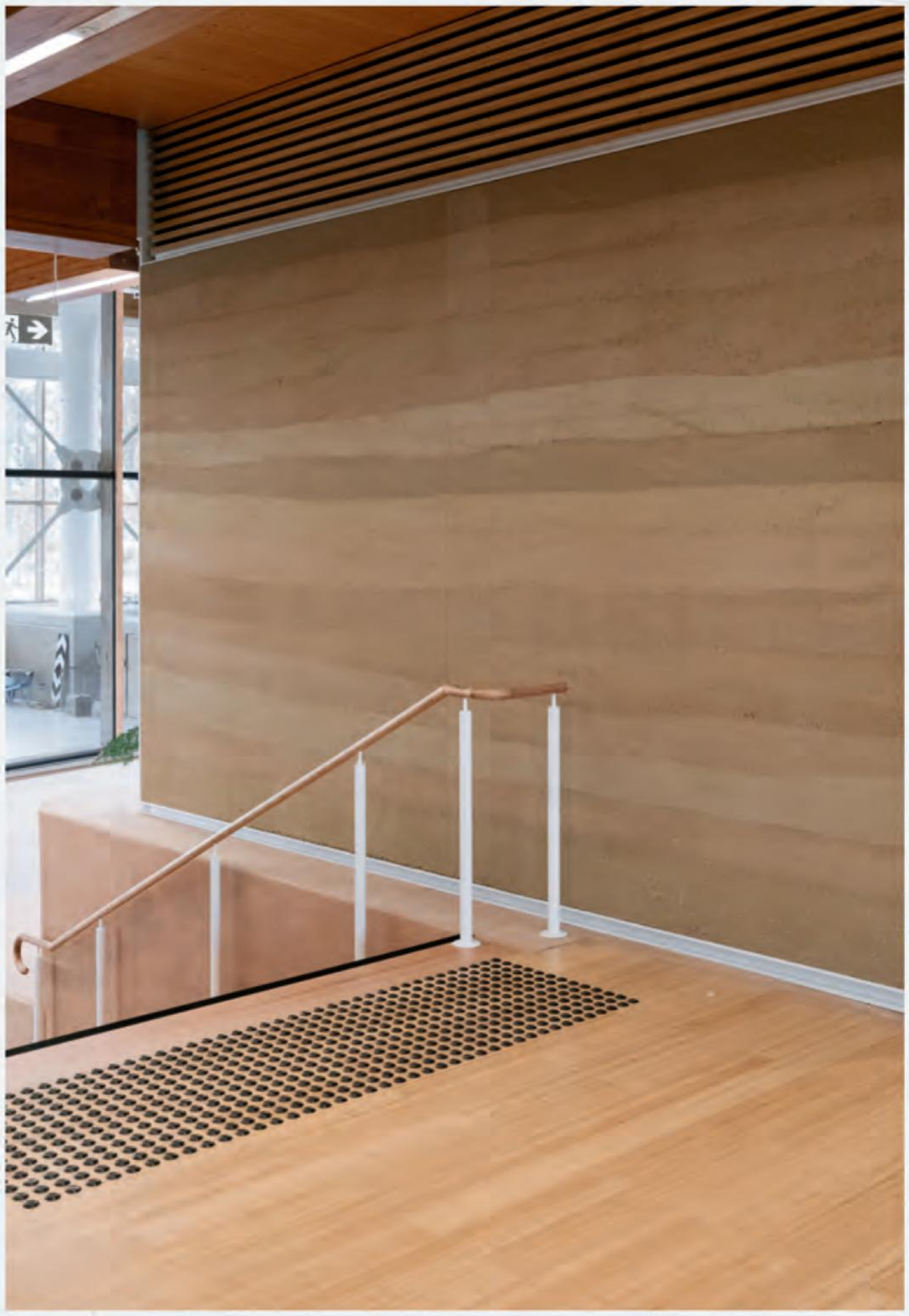
"There are no right answers to these questions but knowing this will help you discern if the products you are selecting are fit for purpose and can help suppliers assist you with finding solutions," says Williamson.

MAGNES® TIMBER

MAGNES® is a magnetic timber flooring system designed for effortless connection to steel access floors. With fast installation, 100% underfloor accessibility, and natural timber finishes, it redefines architectural flooring.

FSC-certified, durable and reusable—MAGNES® brings a refined, sustainable solution to high-performance spaces. Smart, stylish and instantly walkable.





“Selecting the right product for a particular application requires consideration of several factors.”

ABOVE tretfordl Custom Rugs / Gibbon Architectural

SUPPLIERS GH Commercial ghcommercial.com **Gibbon Architectural** gibbonarchitectural.com.au **Interface** interface.com/AU/en-AU
EC Carpets eccarpets.com.au **Midas Floors** mfloors.au **Embelton Flooring** embeltonflooring.com

Getting the most out of commercial buildings with Insulated Panels

Commercial buildings represent a major investment for clients, so they need to perform well on all fronts. Insulated panel systems offer thermal efficiency, airtightness, durability and fire performance, with a very straightforward method of construction that allows rapid completion and minimal waste. They also provide design flexibility so that buildings can be aesthetically pleasing as well as high performing. So, how does it work?

Design stage

With a wide range of colours, profiles and finishes available, insulated panel systems can help to bring architectural visions to life, supporting creativity without compromising building performance.

When it comes to complying with the requirements of the National Construction Code, whether it's thermal efficiency, fire performance, or helping to meet sustainability standards, insulated panel systems can help to simplify the process. Some products have 'deemed to satisfy' status, can contribute towards Green Star ratings, and have FM Approval.

The right insulation for the job

A polyisocyanurate (PIR) insulation core provides high levels of thermal efficiency. For example, a 100mm PIR core insulated panel can achieve an R-value of 4.61 (m2K/W) at 23°C. This means that thinner panels can be used, supporting slim, lightweight constructions that can also offer wide spanning capability. This allows architects the freedom to design creative buildings with features such as cantilevers, unusual geometry, or simply to reduce secondary steelwork and make better use of space.

A mineral wool insulation core offers a solution for those applications where the NCC requires non-combustible materials to be used. It also provides enhanced acoustic performance, which can help to reduce external noise for sensitive occupancies such as educational buildings, or for buildings located close to noisy facilities such as airports or motorways.

Both mineral wool and PIR panels can be installed vertically or horizontally across the building façade, bringing another visual dimension to the design.

Why insulated panels?

As the panels are manufactured offsite, there is a high level of quality control. There is no potential for missing pockets of insulation, and minimal thermal bridging in the finished building due to the excellent levels of insulation continuity.

The robust factory engineered joints and solid single unit construction readily provide both air and watertightness. In turn, this helps to ensure a reliable level of thermal and structural performance, limited condensation risk and helps to ensure that 'as built' meets the design intent.

This level of thermal efficiency can help to reduce operational carbon by minimising heating or cooling energy demand.

Construction phase

The single component construction of insulated panels means that a large portion of the building envelope is sourced from a single supplier, leading to fewer deliveries and less waste on site.

The panel installation is also not weather dependent, reducing the likelihood of cost and project overruns. Faster weatherproofing allows for follow on trades to start earlier for fit-out and completion. In turn this means that clients can start to use and potentially realise an income stream from the property more quickly, making them a more attractive prospect.

Contact our expert team to find out more.

Kingspan

FIND OUT MORE

bit.ly/Kingspan-Insulated-Panels-ADV-ADQ2-2025

UNCOMPROMISED HEIGHT SAFETY THAT'S VIRTUALLY INVISIBLE

KATTSAFE
RIGID STEALTH RAIL

Years in the making. Award winning design. The lowest profile rigid rail available.

The revolutionary Rigid Stealth Rail is a continuous rail system with a barely-there design that can curve vertically and horizontally, making it the most flexible rope access and fall arrest system for even the most complex designs. It's truly the best of form and function.

It's compliant height safety that doesn't impact your creative vision.

Learn more at
kattsafe.com.au/stealth

Kattsafe

Height access
and fall protection

Talking Architecture & Design

Commercial: The Commercial series of podcasts deals with the rising pace and dramatic change of this sector if the built industry that is leading to challenges in both how commercial structures are designed and how they are maintained and refurbished to meet current safety standards and environmental guidelines.

Launched in 2017 as part of the Architecture & Design publishing and news network, Talking Architecture & Design interviews industry leaders, innovators, personalities and a range of industry movers and shakers. With no subject that is off-limits, we talk to those that not only make change happen, but also those that turn that change into industry norms and trends.

EPISODE 247: MODDEX CEO ALVIN ROWLAND ON HIS COMPANY'S JOURNEY TO BECOME AN ICON OF AUSTRALIA'S HANDRAIL-MAKING INDUSTRIES

Alvin Rowland, the CEO, and founder of Moddex, which started out as Sentaur Products in 2008, brings his passion to the table every day.

He explains his journey and that of his company into what is now an icon in Australia's metal bending and handrail industries.

bit.ly/TADPodcast_247

EPISODE 246: POWERHOUSE PHOTOGRAPHY ARCHITECTURAL COMMISSION WINNER TASHA TYLEE ON LIGHT, SPACE & ARCHITECTURAL PHOTOGRAPHY

Born and raised in New Zealand, Tasha Tylee is an emerging architectural photographer that has worked with some of Australia's top firms, most notably capturing Naples Street House by Edition Office, the 2024 AIA National Winner of The Robin Boyd Award for Residential Architecture.

bit.ly/TADPodcast_246

EPISODE 244: COX ARCHITECTURE NATIONAL HEAD OF SUSTAINABILITY MATHIAS IRGER ON CIRCULARITY, REGENERATIVE DESIGN & CARBON COUNTS

Dr Matthias Irger is an experienced architect, urban designer and academic specialising in regenerative design, holistic city planning and climate adaptation, who he talks about a range of issues that are becoming front of mind in the built environment including circularity, climate change resilience, regenerative design, and carbon reduction as well.

bit.ly/TADPodcast_244

Proudly sponsored by

moddex

AWS
ARCHITECTURAL WINDOW SYSTEMS

Autex
Acoustics

EPISODE 240: GERALD MATTHEWS ON MODERN EDUCATION DESIGN, HERITAGE-RAGE AND WHY DOUGHNUT-SHAPED PLANETS CAN'T EXIST

Gerald Mathews, the managing director of Matthews Architects, a practice which was founded by his father way back in 1975 in North Adelaide, South Australia.

In this podcast, he talks about modern education design, heritage hysteria and why doughnut-shaped planets have no gravity in their centres.

bit.ly/TADPodcast_240

EPISODE 230: JIMMY WALKER FROM JCB ARCHITECTS REFLECTS ON THE PRACTICE'S BIG WINS AT THE 2024 SUSTAINABILITY AWARDS

Senior Associate at Jackson Clements Burrows Architects Jimmy Walker has worked in leading design practices in both Melbourne and Darwin, across multi-residential, healthcare, education, residential, social housing, infrastructure, tropical design, and remote community work.

bit.ly/TADPodcast_230

Top Episodes (All time)

EPISODE 1: Talking with Robin Mellon, CEO of Australia's Supply Chain Sustainability School

EPISODE 2: Talking with Helen Lochhead, President-elect of the Australian Institute of Architects

EPISODE 97: My sustainability journey by 2021 Sustainability Awards Lifetime Achievement winner, Tone Wheeler

EPISODE 91: Stephen Choi talks about biophilic design and the opportunities it brings to architects

EPISODE 52: Koichi Takada talks about sustainable design and how COVID-19 has forever changed how we work, live, and design our buildings

Visit **podcast.architectureanddesign.com.au** for the full list of podcast episodes or search for us on your usual podcast platforms.
If you would like to be interviewed on *Talking Architecture & Design*, send an email to **podcast@architectureanddesign.com.au**

Lean on Moddex for easy installation.
Lean on Moddex for project support.
Lean on Moddex for guaranteed compliance.
And lean on Moddex for safer communities.
For handrails, balustrades, access systems and more.

Lean on Moddex

moddex®

moddex
MD207.48

“Innovation is in our DNA” with Founder and CEO of Moddex Alvin Rowland

Founder CEO of Moddex Alvin Rowland has a background in metal bending and rolling, and while he enjoyed the trade, he was looking for a way to add greater value to his work.

So when a friend returned from a trip to the UK with a cast clamp Alvin saw enormous potential in the way it could allow metal components to be bolted together to form larger structures.

When he first started trying to sell the clamps that connect the Moddex handrail systems today, he received little interest. That is until a builder said: “I’m not interested in clamps but need a run of handrails along this retaining wall here by next Friday. Is there any chance you could help out?”

“That was the catalyst for me to look at the clamp I had in my hand…and I thought, why not have a crack,” Alvin says.

He successfully delivered the product and realised he could make a go of the concept at scale and that it could be a much more successful business than simply selling the clamps.

“From there, I was on to builders like a rat up a rope. Every day for me was a learning mission,” he recalls.

He says a key vision underpinning Moddex is bringing ‘system’ into handrails and barriers.

“We’ve got you covered for compliance with our pre-engineered and pre-configured systems, so your reputation and how you’re going to sit when you do that final check with a certifier are safe with us.”

“Innovation is in our DNA. We like to see ourselves as rebels with a cause”.

Originally, it was a challenge for them to have customers see modular or kits accepted as more than temporary.

“There was a lot that didn’t believe it could be done. It was a real hurdle for us, so it took some grit and some belief and persistence,” he says.

And the persistence paid off, with Moddex now a leader in no-weld, modular handrail and balustrade systems.

For Alvin, one of Moddex’s most memorable projects was the Brisbane Airport Link Tunnel.

“In behind the walls of the tunnel, there are kilometres of disability egress. What we were able to do there using our modular design and kit set approach is we got them away from welding in confined spaces,” he recalls.

He says Moddex was able to bring ease and convenience to the project while eliminating potential WHS and OHS issues. The kits are delivered with installation instructions, meaning they can be installed quickly. Rather than weeks on-site, it only takes days.

“We deeply believe that Moddex exists to find a better way to do things,” he says.

“You look around and there’s just way too many things that are being done the same way for too long. You can make an assumption in your mind that everything is being done really well but I think the truth is if you open your eyes up you can always find a spot that is being overlooked or ignored”.

—TALKING— ARCHITECTURE & DESIGN

COMMERCIAL SERIES PARTNER

moddex®

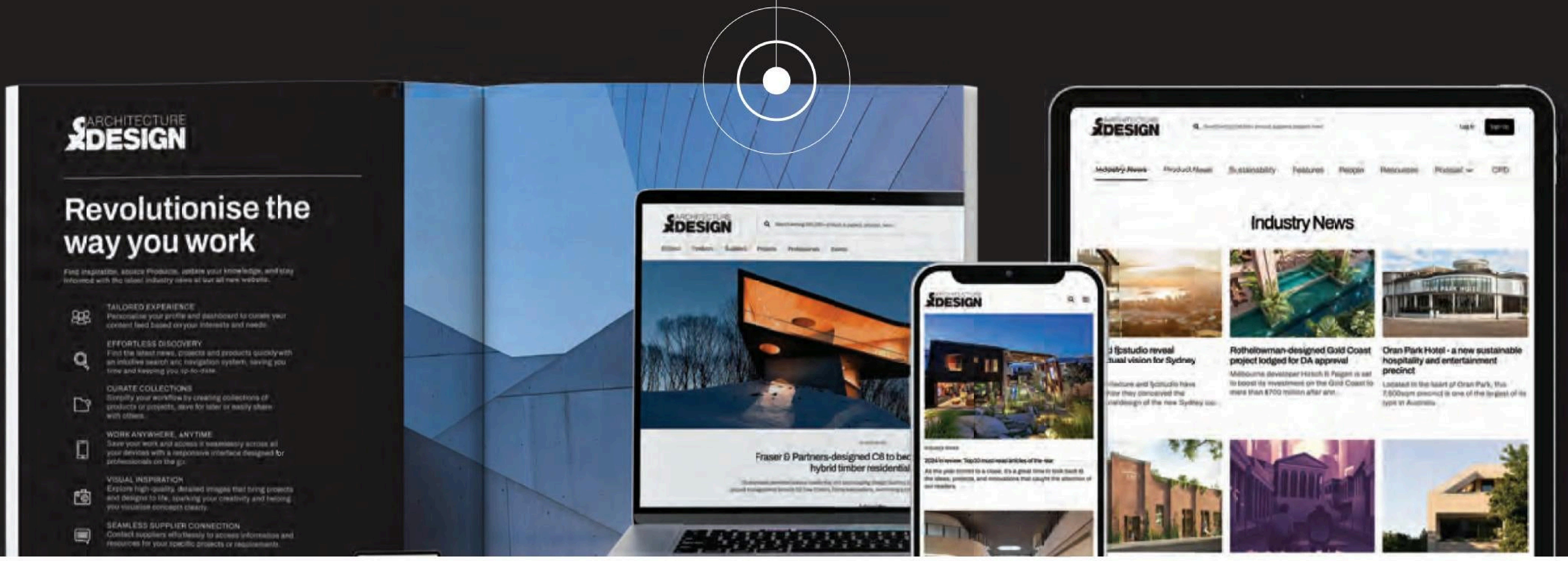
LISTEN TO PODCAST EPISODE 247

ARCHITECTURE
DESIGN

The Trusted Resource for Architects & Designers

For almost 60 years, Architecture & Design has been the go-to platform for industry professionals.

- Australia's largest circulating A&D magazine
- Product directory with specification details
- Daily news on people, projects & products
- Inspiring architectural projects from Australia & beyond
- Free CPD learning & education


ARCHITECTURE DESIGN
Revolutionise the way you work
Industry News

Stay connected. Stay ahead.

architectureanddesign.com.au

Welcome to the Architecture & Design

Product Directory

PRODUCT CODES

To find out more about a specific featured product please scan the QR code or use the unique product code provided on each module and follow these 4 simple steps:

SCAN

Scan the QR Code on your mobile device

or

01.

Visit **architectureanddesign.com.au**

02.

Type unique product code into search bar

03.

Locate and review further product and supplier information

ONLINE

Visit **architectureanddesign.com.au/magazine/2025-apr-jun** to view all featured products from this issue in one place

EMAIL

Subscribe to the Architecture & Design eNewsletter to receive product updates, news and projects directly to your inbox **architectureanddesign.com.au/subscribe**

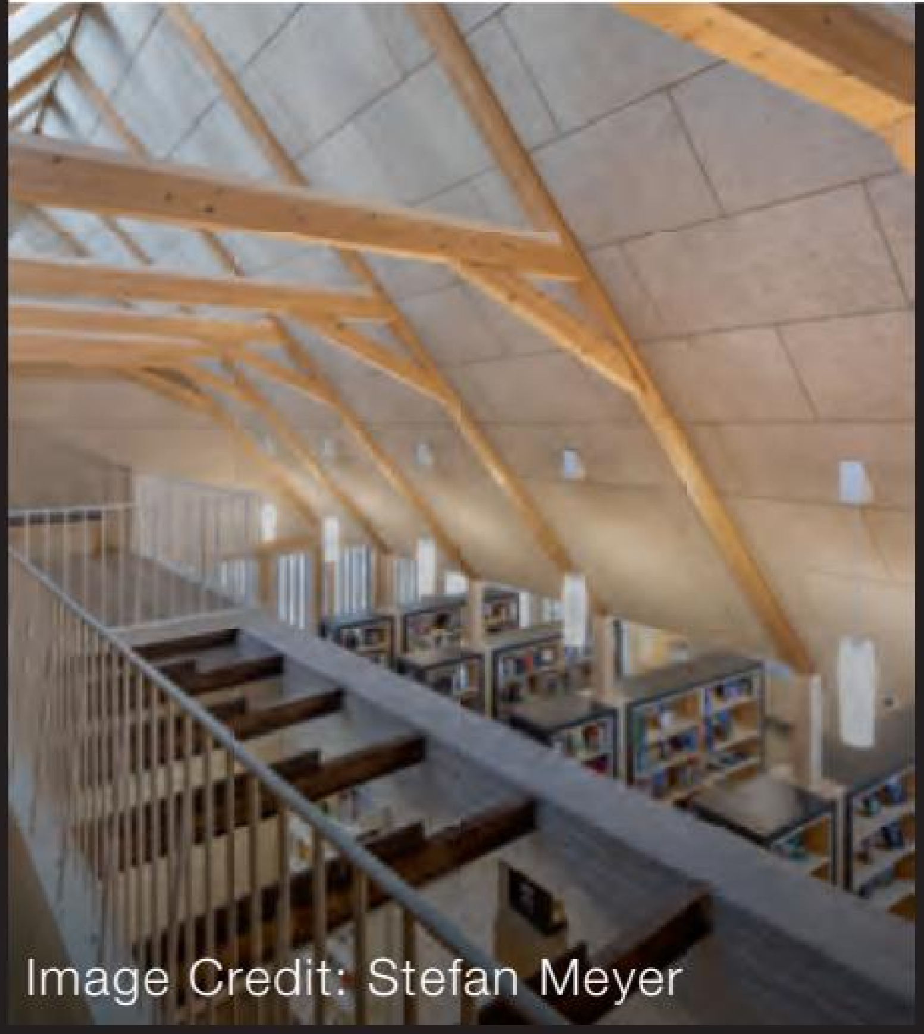


Image Credit: Stefan Meyer

HERADESIGN®: WHERE SUSTAINABILITY MEETS DESIGN FREEDOM

Crafted from 100% renewable materials: wood wool, water, & magnesite, HERADESIGN® acoustic wall & ceiling panels offer visible texture & design flexibility. They also provide high levels of sound absorption to support comfortable, considered spaces. empowers creative freedom.

AC1239
architectureanddesign.com.au

BILLI'S MULTIFUNCTION MIXER TAP: DOES IT ALL

The Billi Multifunction Mixer Tap delivers boiling, chilled, still, and sparkling water, plus a hot/cold mains mixer. Pair with the Home BCS or OmniOne for full filter functionality. With sleek design, smart tech, and built-in safety, it's the ultimate tapware solution for any kitchen space.

XT8879
architectureanddesign.com.au

INTRODUCING GLASROC® X

New to the CSR Gyprock range, Glasroc® X is a class 4 vapour permeable rigid air barrier board, designed for use behind facade cladding systems. It provides up to 6 months weather protection so internal work can progress without waiting for facade completion. The ideal, compliant solution for commercial projects in Climate Zones 2-8.

PS3090
architectureanddesign.com.au

BOX MODERN STYLE

Introducing Lysaght's Box Modern Architectural Design Guide – This is the new face of contemporary living, embraced for its minimalist design, clean lines and geometric precision. Characterised by cube-like volumes, a flat or hidden roofline with a parapet wall and expansive glass elements, it creates a bold and distinctive aesthetic.

LY86359
architectureanddesign.com.au

CREATIVE SPARK: DESIGN WITH COLOUR, INSPIRE CONNECTION.

In the kaleidoscope of human experience, colour holds the power to inspire, connect, and transform. With Creative Spark carpet tiles, you can harness the power of colour to tell new stories and shape spaces that celebrate individuality and connection.

JD4512
architectureanddesign.com.au

AMPLIFY YOUR CLIMATE AMBITION WITH SINIAT'S OPT2ACT®

Siniat's Opt2Act® opt-in carbon neutral program is the simple and cost-effective way to reduce the upfront carbon emissions of a build by up to 7%. Opt2Act is available on a wide range of Siniat's plasterboard and metal framing products.

SI1435
architectureanddesign.com.au

ASI JD MACDONALD'S TRANQUILITY COLLECTION OF TOILET AND SHOWER PARTITIONS

Where form stylishly meets function. ASI JD MacDonald's range of toilet and shower partitions offer durability and reliability.

GP8537
architectureanddesign.com.au

REALISE YOUR DESIGN VISION WITH COLORBOND® STEEL STUDIO

The COLORBOND® steel Studio gives you the freedom to realise your design vision like never before.

Designed to showcase colours and finishes in the one location making the inspiration and selection process as smooth as possible.

BL1417
architectureanddesign.com.au

Image Credit: Trevor Mein

DELIVERING INNOVATIVE FACADES WITH BRICK INLAY

Brick Inlay's innovation, quality control and time savings were a massive advantage in delivering Crows Nest Station's complex façade design. Installing 15-20 brick panels per week, all in a Flemish bond, some sitting cantilevered, protruding at 5mm increments to the full 85mm protrusion.

RF1121
architectureanddesign.com.au

BOBRICK FINO COLLECTION: ELEGANCE MEETS FUNCTIONAL SENSIBILITY

The Fino Collection by Bobrick combines elegant design with modern sensibility. Crafted with high-quality satin-finish stainless steel, well-defined edges and concealed hardware, the Fino Collection is an elevated design line of accessories that epitomize functionality and create a striking visual impact.

TO1565
architectureanddesign.com.au

BRITA COMMERCIAL GRADE WATER DISPENSERS.

Introducing Extra C-Tap, BRITA's signature high capacity hot-and-cold water dispenser, outstanding design and state-of-the-art technology. Smart and stylish, the brushed stainless-steel 33cm designer tap with glass touch panel fills tall bottles, with choice of up to five water types.

BR9528
architectureanddesign.com.au

EVENEER WOODWALL PIONEERING TIMBER VENEER

Eveneer WoodWall is a refined, prefinished timber wallcovering that applies directly to walls - no extra framing required. Wrapping floors and ceilings with effortless continuity, it offers a high-impact, Group 1 fire-rated solution for contemporary spaces.

EG2609
architectureanddesign.com.au

DISCOVER EQUITONE [INSPIRA]: INSPIRED BY AUSTRALIA'S LANDSCAPE

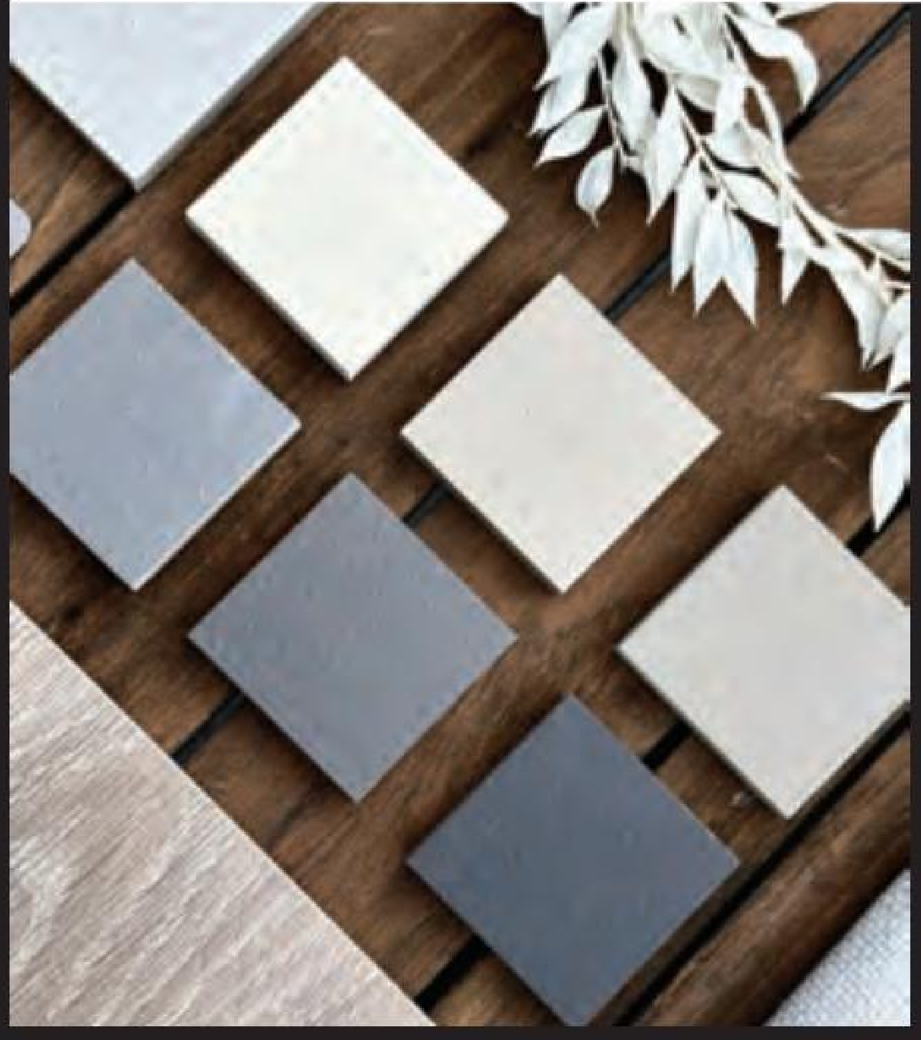
From the earthy tones of the Outback to the rugged textures of coastal cliffs, [inspira] panels create harmony between architecture and the environment. Engineered for durability, the panels exemplify sustainable innovation.

PF3033
architectureanddesign.com.au

ALUMINIUM: BUILT FOR AUSTRALIA'S HARSHEST ENVIRONMENTS

Euramax Aluminium is lightweight, strong, and built for Australia's harsh coastline. With advanced weather-resistant coatings and an Australian-specific warranty, it delivers lasting beauty, corrosion resistance, and minimal maintenance for commercial, residential, and infrastructure projects.

QY2363
architectureanddesign.com.au



CLAYTON TERRACOTTA FAÇADE SYSTEM

With one of the largest profile ranges in the industry, Clayton has a variety of pigments, oxides and glazes available to meet your design intent. Download the eBook or request a free sample today.

FA4731
architectureanddesign.com.au

ELEVATING AESTHETICS AND SECURITY IN ONE

Gunnebo's FLs MAX is an enhanced Speed Gate, boasting an array of design features such as round or square end legs and optimal security features to keep sites protected without creating intrusive or un-welcoming barriers.

PS3645
architectureanddesign.com.au

COMPLIANT HEIGHT SAFETY FOR ANY DESIGN

Kattsafe's range of height access and fall protection products are designed with visual impact in mind and manufactured to the highest specification—for compliant safety that won't distract from your designs.

HX7924
architectureanddesign.com.au

KINGSPAN KOOLTHERM K12 FRAMING BOARD

Kooltherm K12 Framing Board features a fibre-free, rigid thermoset phenolic insulation core. Suitable for timber and steel frame wall construction, its slim-profile and rigid design enable the creation of thinner walls while delivering continuous insulation that helps minimise thermal bridging.

IJ1547
architectureanddesign.com.au

CODEMARK-CERTIFICATED POLYCARBONATE FAÇADE SYSTEM

ArcoWall 5613 is Australia's only CodeMark- certified polycarbonate system, ideal for commercial buildings like schools, sport centre. Lightweight, anti-glare, and highly insulating, it is perfect for curtain walls, cladding, vertical glazing - a cost-effective alternative to traditional glass facades.

KY5031
architectureanddesign.com.au

ENERGY-EFFICIENT WOOD-ALU WINDOWS & DOORS

Paarhammer's Composite Timber Aluminium Windows and Doors combine timber's elegance and energy efficiency with aluminium's durability. Custom-made in Victoria with German hardware and double/triple glazing, they achieve U-values as low as 1.0, reduce noise up to 43dB. Suitable even for Passivhaus standards.

PW0814
architectureanddesign.com.au

AUTOMATE VEHICLE LIFTS MADE IN AUSTRALIA

The Australian vehicle lift market continues to be led by Australia's leading local manufacturer of vehicle lifts, Safetech. Their best-selling AutoMate vehicle lifts are becoming commonplace in private residential and multi-use high-rise developments with national service and emergency callout support.

SA4925
architectureanddesign.com.au

SJ PROTEGER EN12101-2 NSHV LOUVRES

SJ Proteger is an EN12101-2 (Annex G) compliant NSHV solution, integrating seamlessly into façade designs. Its operable glass louvres support stair pressurisation and smoke control—delivering performance, aesthetic flexibility, and life-safety functionality for fire-engineered ventilation strategies.

SJ4758
architectureanddesign.com.au

INFINITY PLANKS: COLOUR, WOOD & STONE

Experience the vibrant colours and enduring charm of natural wood and stone with Infinity Planks. This premium vinyl plank collection combines beauty, durability, and versatility—perfect for bringing timeless style to any space.

XW6493
architectureanddesign.com.au

SIKATILE®: 0% CRYSTALLINE SILICA TILE ADHESIVE FOR IMPROVED AIR QUALITY AND BETTER WORKING CONDITIONS

Sika's sand and silica free tile and stone adhesive with Dust Less Technology that reduces airborne dust during mixing by up to 80% achieving improved air quality, better working conditions, less mess, and faster clean-up.

SA1743
architectureanddesign.com.au

ACCESS COVERS THAT ENHANCE DESIGN

Australian-made from 316 Marine Grade Stainless Steel, our HIDE Access Covers optimise space and enhance aesthetics. They reduce slip hazards while providing easy service access—combining safety, functionality, and sleek design to elevate your project's quality.

CN2260
architectureanddesign.com.au

NINELINE WALL CLADDING

Stratco's architecturally designed range now features Flute, a curved profile that challenges conventions.

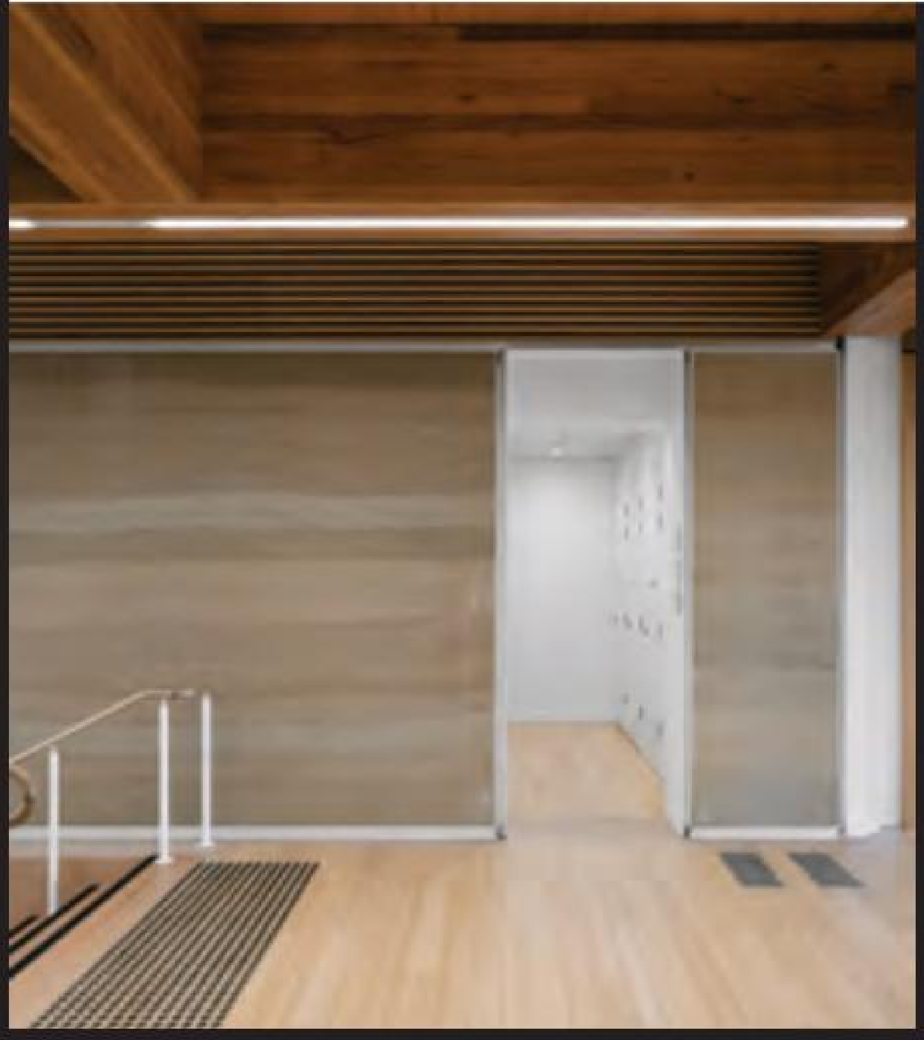
The NINELINE™ range offers unique profile shapes and deeper rib heights. The series also includes Pleat, Box and Batten. Available in a variety of colours and finishes.

BH3736
architectureanddesign.com.au

COMPACT, VERSATILE SEATING RISERS BY TRANSTAGE

Elevate your audience experience with Transtage Portable Seating Risers—compact, easy to set up, and robustly engineered for safe, comfortable viewing. Perfect for schools, venues, and events seeking versatile, convenient, and cost-effective seating solutions.

EC1098
architectureanddesign.com.au



ELEVATE INTERIORS WITH MAGNETIC TIMBER FLOORING

Elevate your space with MAGNES®—a premium magnetic timber flooring system designed to connect effortlessly to steel access flooring. Offering timeless beauty, full underfloor access, and simple maintenance, it's sustainable, sophisticated, and instantly walkable. Smart design meets natural elegance.

FC6132
architectureanddesign.com.au

LUXEWALL®: LUXURY WALLING SOLUTIONS

LuxeWall® is a high performance, lightweight wall cladding product with luxury finishes for residential projects. Manufactured in Australia, it delivers outstanding architectural qualities in COLORBOND® Matt & Metallic finishes. It offers increased speed of construction with a concealed fixed system.

BO4518
architectureanddesign.com.au

THE FUTURE OF ZERO SILICA SURFACES

Xeron® By Cosentino is an advanced approach into fine interior design solutions, where balance and surfacing technology meet to redefine interiors and enable a new era of zero crystalline silica* surfaces. Made of up to 88% recycled materials, with a neutral and balanced colour palette.

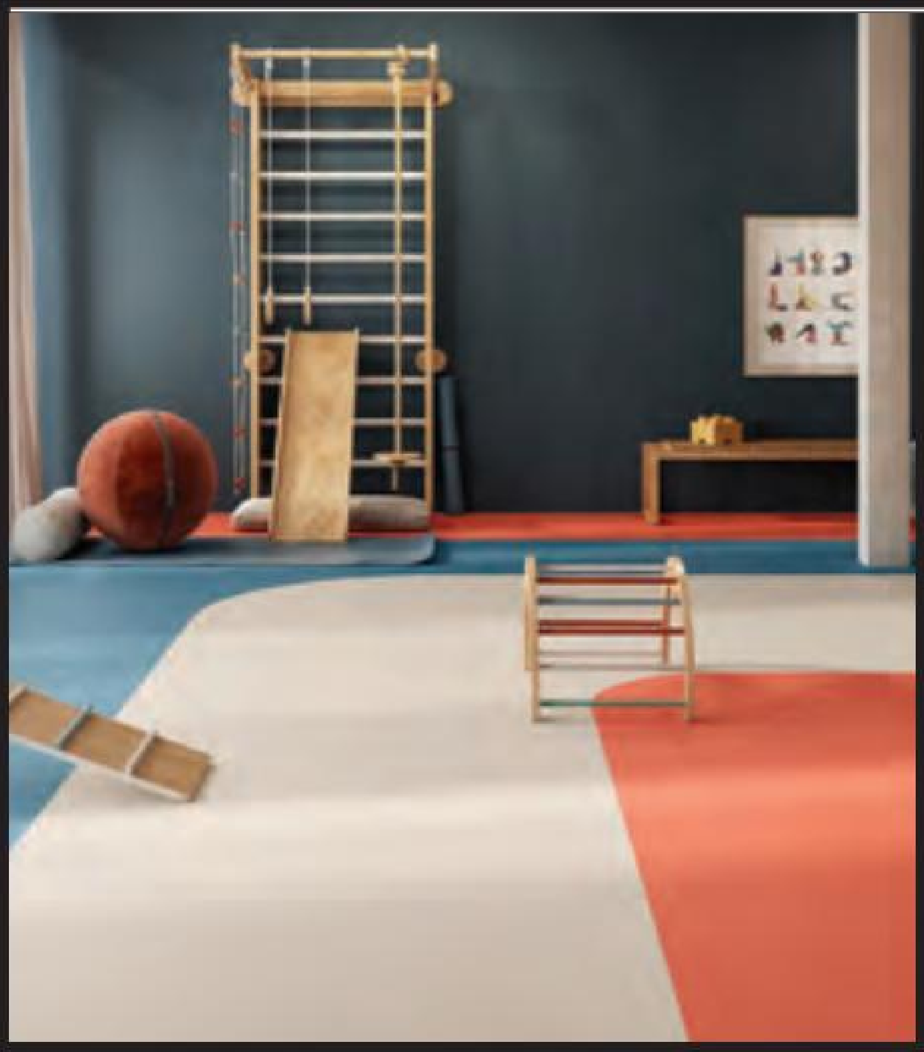
BM6801
architectureanddesign.com.au

PINK PARTITION
R4.2
Fletcher Insulation

PINK PARTITION 22KG 150MM FOR EXTERNAL WALLS

The R4.2 Pink Partition 22 150mm insulation is a high-performance wall solution specifically designed for steel frame commercial buildings. Its friction-fit design ensures easy installation, providing energy efficiency and comfort in temperature-controlled environments like healthcare buildings.

FI1930
architectureanddesign.com.au



PREMIUM: PURE PVC HETEROGENEOUS FLOOR COVERING

Taralay Premium is a heterogeneous floor covering with a greater than 1mm thickness wear layer ideal for high-traffic areas. With 8 different designs and 81 colour references, there is a solution for every project!

UA8678
architectureanddesign.com.au

GEOSTONE'S EXPOSED CONCRETE IS A GREAT SOLUTION FOR YOUR NEXT PROJECT.

Exposed Concrete brings a natural, raw look to your home that adds character and personality. Exposed Geostone Concrete exposes the unprocessed textures of the stone, creating a rough, textural and distinct look that will set your home apart.

HA1915
architectureanddesign.com.au

SAS750 OFFERS A UNIQUELY STYLISH FINISH TO ANY COMMERCIAL SPACE

SAS750 is a linear metal ceiling system that fosters dynamic and impactful design along with practical considerations such as access and service integration. SAS750 offers specifiers numerous design features, such as curves and waveforms, as well as horizontal, vertical and interior mounting.

MU8782
architectureanddesign.com.au

SUPAMICRO: DISCRETE DECORATIVE ACOUSTIC PANEL

SUPAMICRO is a new micro-perforated acoustic panel solution. Designed for superior acoustic performance without compromising aesthetics, it lets the natural beauty of woodgrain shine through. Customisable to your project's needs, it balances performance, compliance and budget.

JX1221
architectureanddesign.com.au

DISCOVER DESSO AIRMASTER CARPET TILES

Designed to help improve air quality in living and working spaces, AirMaster Carpet Tiles capture and retain fine dust 8 times more effectively than smooth floors and 4 times more than standard carpet.

TA2427
architectureanddesign.com.au

NORDIC SOFTWOODS FOR SUSTAINABLE INTERIOR SOLUTIONS.

New builds or renovating. Australian family heritage of over 170 years. Minimise the carbon footprint for your build. Competitive alternative to diminishing Australian native hardwoods. No chemicals or glues. Improved thermal and acoustic properties.

XG8965
architectureanddesign.com.au

MAKING ACCESSIBILITY MORE ACCESSIBLE

Engineered with innovation and precision, this new system is an efficient solution for creating safe, compliant ramps, stairs and walkways. Load rated to 5 kPa and configurable to almost any application, it's manufactured off site and delivered ready to-assemble.

MO0354
architectureanddesign.com.au

GALVINASSIST COLOUR SINGLE LEVER MIXER COLLECTION

GalvinAssist mixers blend style with function, catering to all abilities. Perfect for care and education, they feature vivid markers, diverse handle options, and sleek finishes. Safe, lead-free and 6-star WELS rated, they offer vibrant colours for any design vision.

GE9959
architectureanddesign.com.au

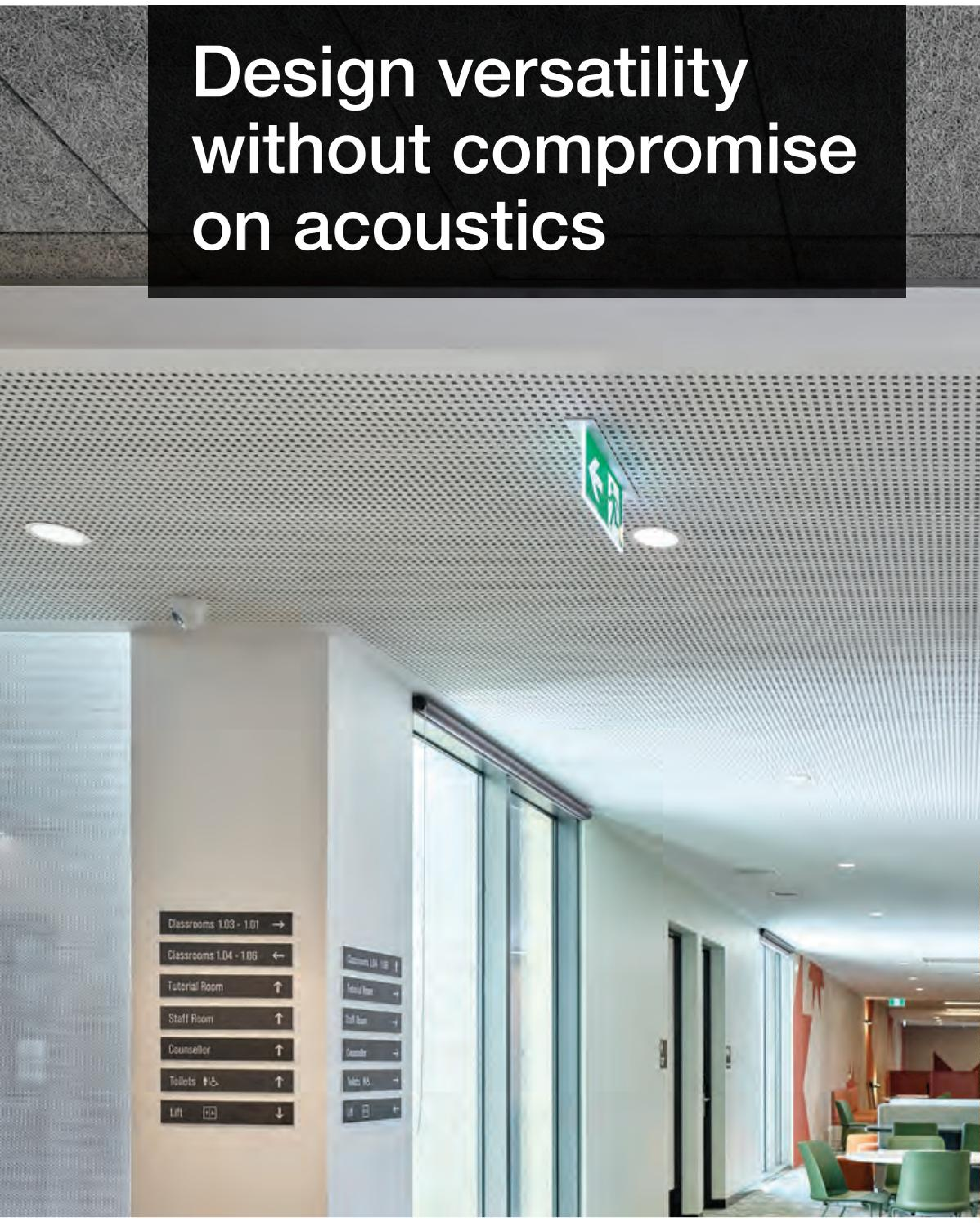
DURLUM: BESPOKE METAL CEILINGS FOR EXTRAORDINARY PROJECTS

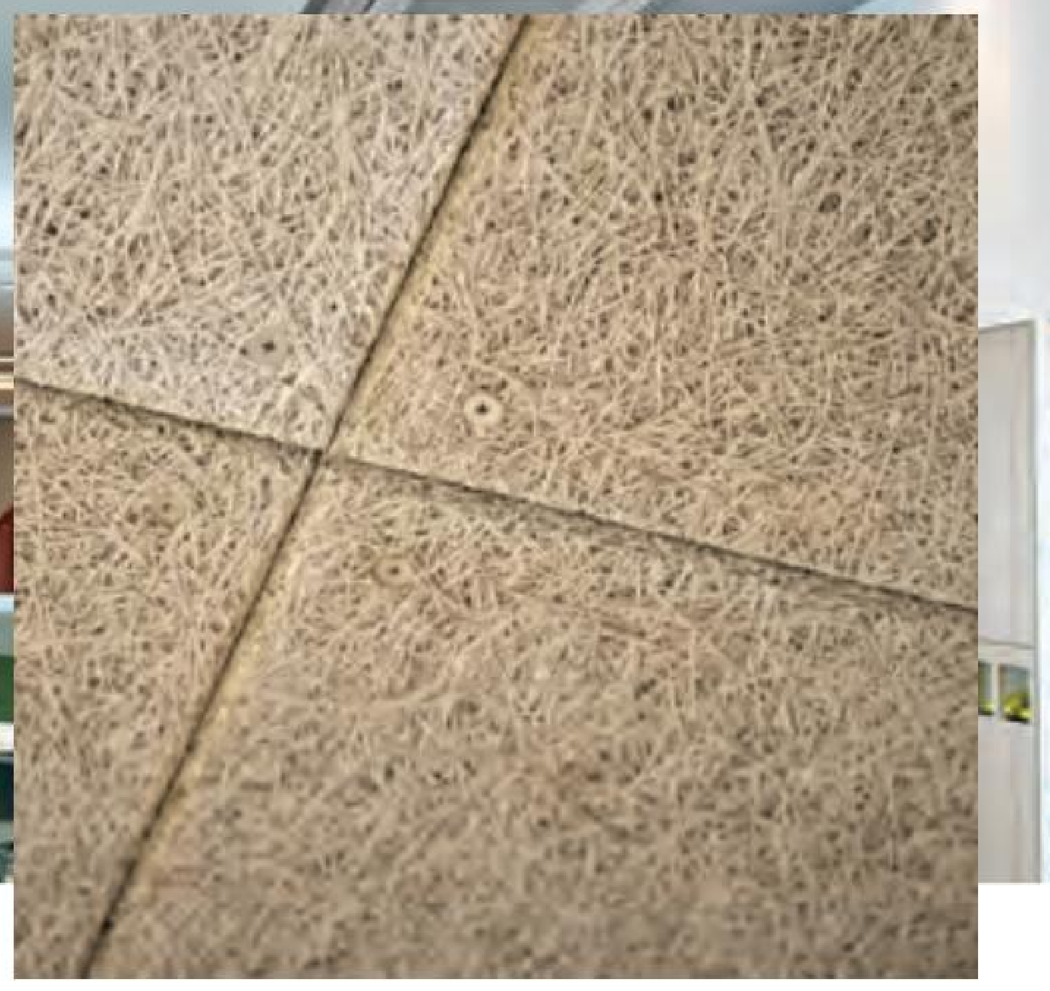
durlum is a leading manufacturer of innovative, versatile metal ceilings and integrated lighting solutions. From airports, railway stations and retail to office buildings, schools, sporting venues and outdoor structures, durlum ceilings can bring a sleek, modern finish to your project. your design aesthetic criteria.

NA7611
architectureanddesign.com.au

HIMMEL™
INTERIOR SYSTEMS

Design versatility without compromise on acoustics


Classrooms 1.03 - 1.01
Classrooms 1.04 - 1.06
Tutorial Room
Staff Room
Counsellor
Toilets
Lift


Classic panels

Troldtekt Design

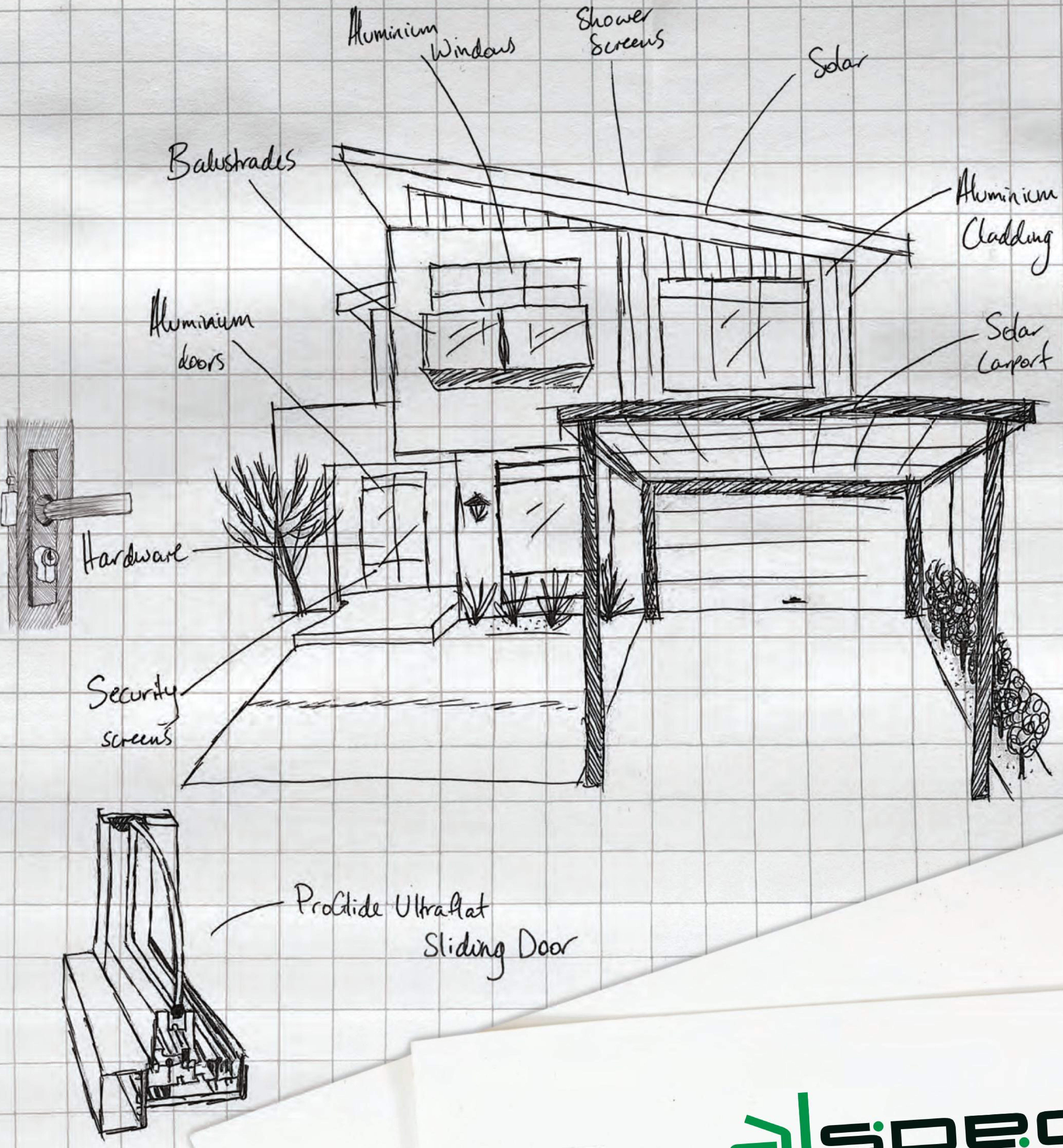
Combining aesthetics and high acoustic performance, Troldtekt panels are an ideal solution for both walls and ceilings in applications such as education spaces, offices and retail projects.

- Sustainably manufactured from natural wood
- Available in smooth or CNC routed finishes
- Simple to install using the Rondo 64mm Furring Channel and Clip Fixing system

Scan to see
the range

CSR

Specification made easy


Aluminium Windows
Shower Screens
Solar
Balustrades
Aluminium Cladding
Aluminium doors
Solar Carport
Hardware
Security screens
ProGlide Ultraflat Sliding Door

Get in touch
today

alspec®
EVERYTHING ALUMINIUM & HARDWARE

alspec.com.au